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NEWS	2	JUL 02	LMEDLINE coverage updated
NEWS	3	JUL 02	SCISEARCH enhanced with complete author names
NEWS	4	JUL 02	CHEMCATS accession numbers revised
NEWS	5	JUL 02	CA/CAPplus enhanced with utility model patents from China
NEWS	6	JUL 16	CAPplus enhanced with French and German abstracts
NEWS	7	JUL 18	CA/CAPplus patent coverage enhanced
NEWS	8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS	9	JUL 30	USGENE now available on STN
NEWS	10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS	11	AUG 06	FSTA enhanced with new thesaurus edition
NEWS	12	AUG 13	CA/CAPplus enhanced with additional kind codes for granted patents
NEWS	13	AUG 20	CA/CAPplus enhanced with CAS indexing in pre-1907 records
NEWS	14	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS	15	AUG 27	USPATOLD now available on STN
NEWS	16	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS	17	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	18	SEP 13	FORIS renamed to SOFIS
NEWS	19	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS	20	SEP 17	CA/CAPplus enhanced with printed CA page images from 1967-1998
NEWS	21	SEP 17	CAPplus coverage extended to include traditional medicine patents
NEWS	22	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	23	OCT 02	CA/CAPplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	24	OCT 19	BEILSTEIN updated with new compounds
NEWS	25	NOV 15	Derwent Indian patent publication number format enhanced
NEWS	26	NOV 19	WPIX enhanced with XML display format
NEWS EXPRESS	19	SEPTEMBER 2007:	CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS LOGIN			Welcome Banner and News Items
NEWS IPC8			For general information regarding STN implementation of IPC 8

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\* \* \* \* \* STN Columbus \* \* \* \* \*

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=> file casreact

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CASREACT' ENTERED AT 10:36:48 ON 21 NOV 2007

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FILE CONTENT:1840 - 17 Nov 2007 VOL 147 ISS 22

New CAS Information Use Policies, enter HELP USAGETERMS for details.

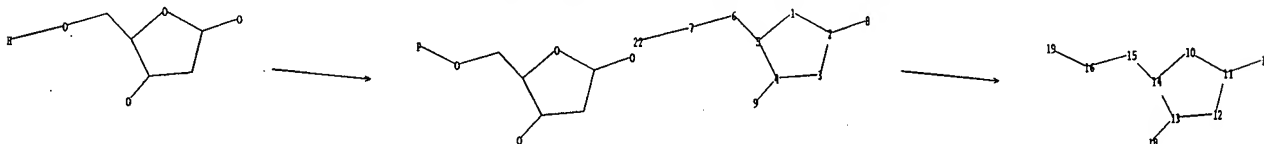
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This file contains CAS Registry Numbers for easy and accurate substance identification.

=>

Uploading C:\Program Files\Stnexp\Queries\10578912\reaction 2.str



chain nodes :

6 7 8 9 15 16 17 18 19 22

ring nodes :  
 1 2 3 4 5 10 11 12 13 14  
 chain bonds :  
 2-8 4-9 5-6 6-7 7-22 11-17 13-18 14-15 15-16 16-19  
 ring bonds :  
 1-2 1-5 2-3 3-4 4-5 10-11 10-14 11-12 12-13 13-14  
 exact/norm bonds :  
 1-2 1-5 2-3 2-8 3-4 4-5 4-9 6-7 10-11 10-14 11-12 11-17 12-13 13-14  
 13-18 15-16 16-19  
 exact bonds :  
 5-6 7-22 14-15

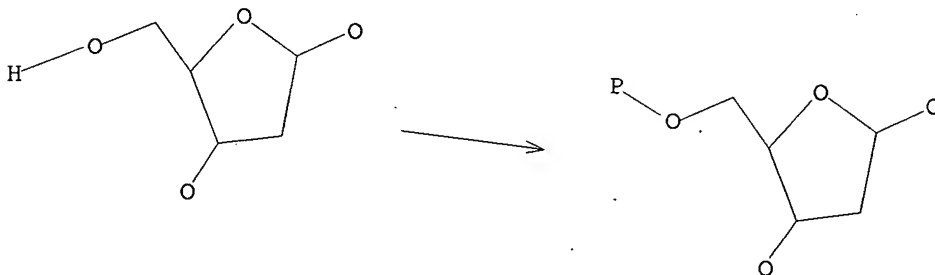
Match level :  
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:Atom  
 11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS  
 19:CLASS 22:CLASS  
 fragments assigned product role:  
 containing 10  
 fragments assigned reactant/reagent role:  
 containing 1

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 10:37:07 FILE 'CASREACT'

SCREENING COMPLETE - 174 REACTIONS TO VERIFY FROM 17 DOCUMENTS

100.0% DONE 174 VERIFIED 0 HIT RXNS 0 DOCS  
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED VERIFICATIONS: 2689 TO 4271

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1 ( 0 REACTIONS)

=> s l1 full

FULL SEARCH INITIATED 10:37:15 FILE 'CASREACT'

SCREENING COMPLETE - 4071 REACTIONS TO VERIFY FROM 339 DOCUMENTS

100.0% DONE 4071 VERIFIED 81 HIT RXNS

21 DOCS

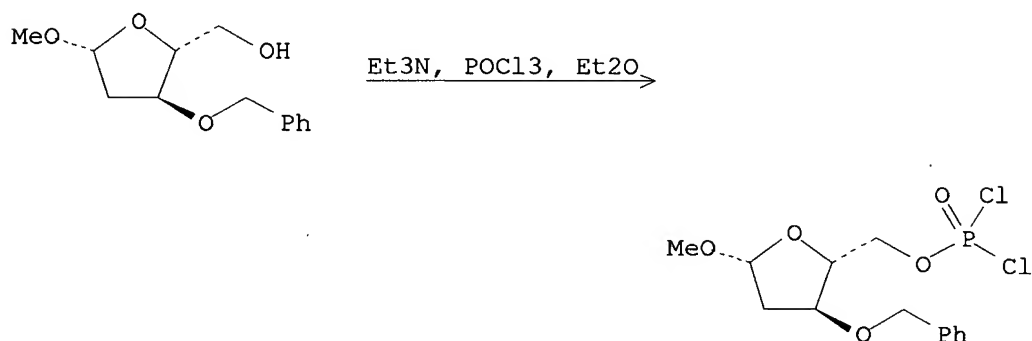
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L3 21 SEA SSS FUL L1 ( 81 REACTIONS)

=> d l3 1-21

L3 ANSWER 1 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(18) OF 34

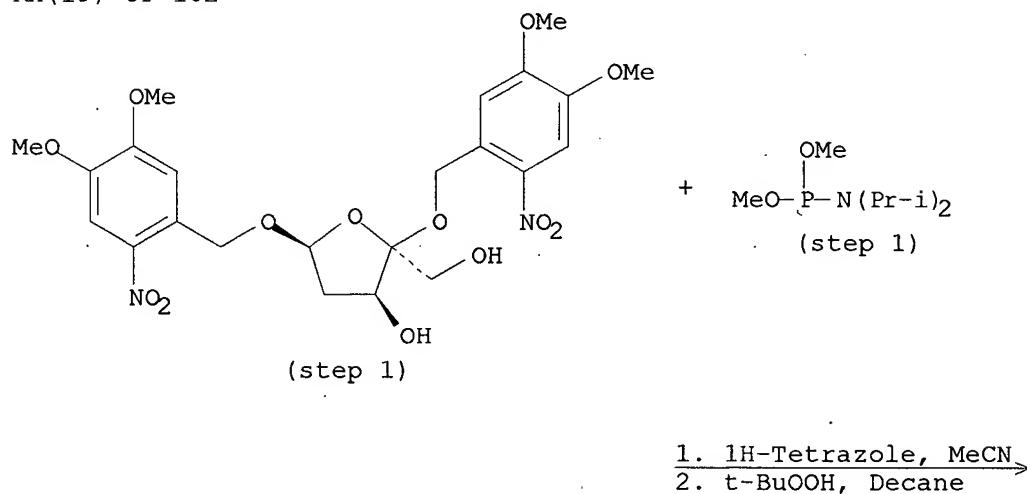


REF: Carbohydrate Research, 341(9), 1117-1129; 2006

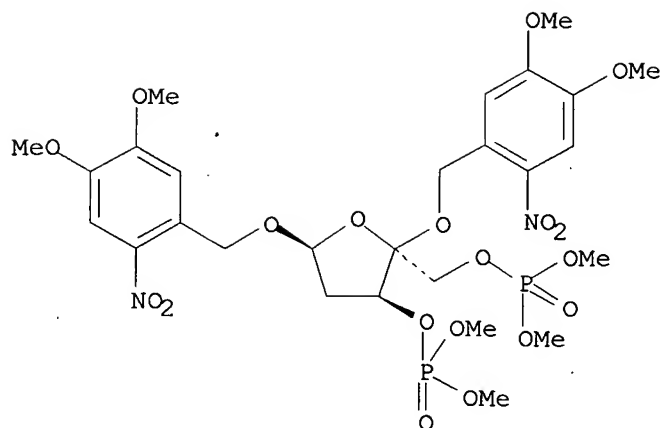
CON: STAGE(1) 0 deg C; 4 hours, 0 deg C; 0 deg C -> 25 deg C

L3 ANSWER 2 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(19) OF 102



RX(19) OF 102

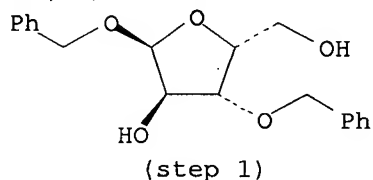


64%

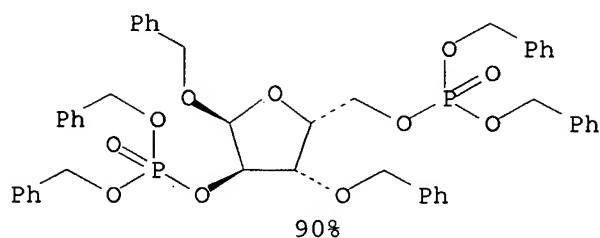
REF: Journal of Organic Chemistry, 70(20), 8122-8129; 2005  
CON: STAGE(1) 30 minutes  
STAGE(2) 2 hours

L3 ANSWER 3 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(34) OF 187



1. *t*-BuOK, THF  
2. [(PhCH<sub>2</sub>O)<sub>2</sub>PO]<sub>2</sub>O,  
THF  
3. AcOH, Water

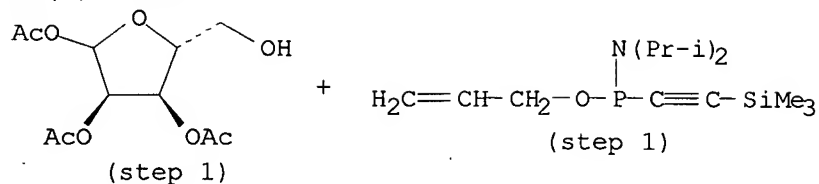


90%

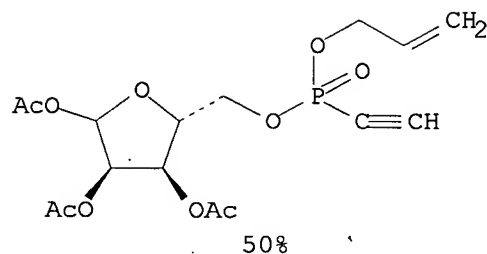
REF: Chemistry & Biodiversity, 1(10), 1418-1451; 2004  
CON: STAGE(1) 5 minutes, -40 deg C  
STAGE(2) 30 minutes, -40 deg C; -40 deg C -> 0 deg C  
STAGE(3) 0 deg C

L3 ANSWER 4 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(6) OF 86



1. 2,4-(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>OH,  
MeCN
2. CH<sub>2</sub>Cl<sub>2</sub>
3. H<sub>2</sub>O<sub>2</sub>, Water
4. NaHCO<sub>3</sub>, Water
5. CsF, EtOH
6. NaHCO<sub>3</sub>, Water

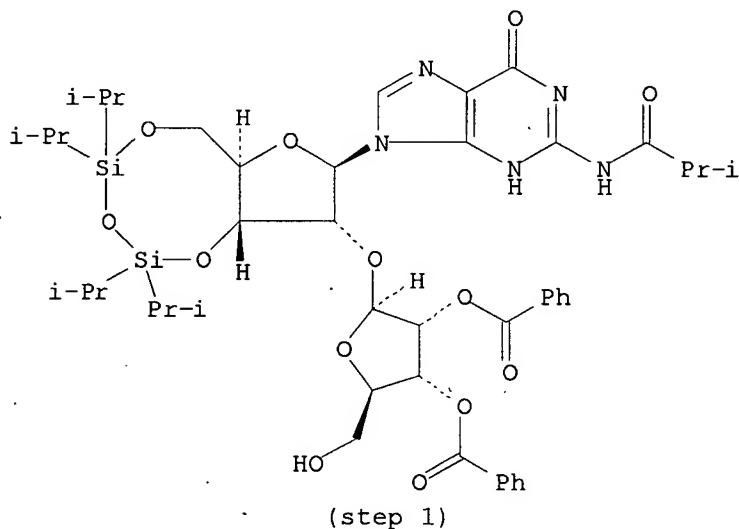


REF: Organic Letters, 6(20), 3461-3464; 2004

CON: STAGE(1) 2 hours, room temperature  
 STAGE(2) room temperature -> 0 deg C  
 STAGE(3) 7 minutes, 0 deg C  
 STAGE(4) 0 deg C  
 STAGE(5) 1 hour, room temperature  
 STAGE(6) room temperature

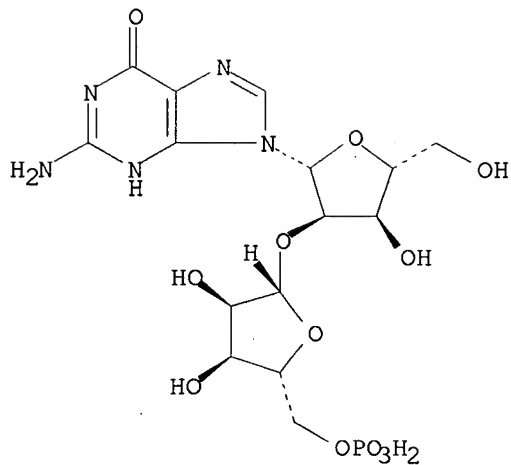
L3 ANSWER 5 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(3) OF 6



RX(3) OF 6

1. R:329188-31-0,  
2,4,6-i-Pr<sub>3</sub>C<sub>6</sub>H<sub>2</sub>SO<sub>2</sub>Cl,  
N-Methylimidazole,  
Pyridine
2. Bu<sub>4</sub>N.F, THF
3. DBU, Pyridine
4. NH<sub>3</sub>, MeOH



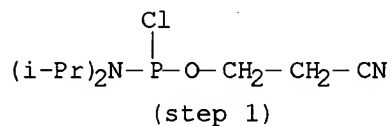
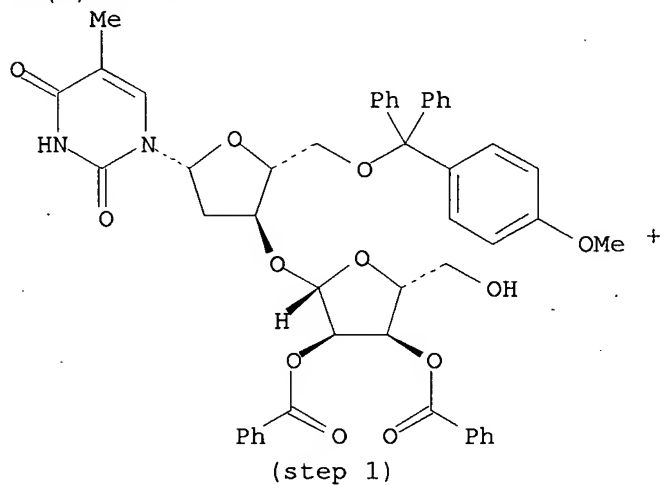
20%

REF: Nucleosides, Nucleotides & Nucleic Acids, 22(5-8), 1109-1111;  
2003

CON: STAGE(1) room temperature  
STAGE(2) room temperature  
STAGE(3) room temperature  
STAGE(4) room temperature

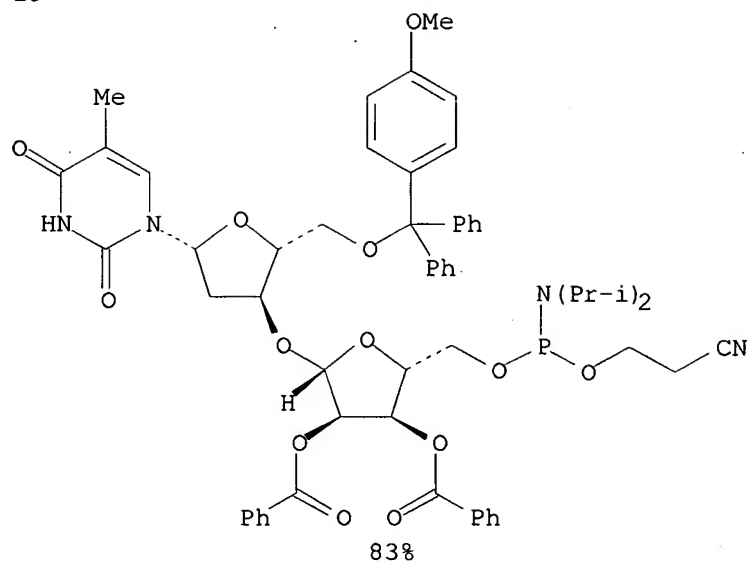
L3 ANSWER 6 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(4) OF 19



1. EtN(Pr-i)<sub>2</sub>, CH<sub>2</sub>Cl<sub>2</sub>
2. Water
3. NaHCO<sub>3</sub>, Water,  
CH<sub>2</sub>Cl<sub>2</sub>

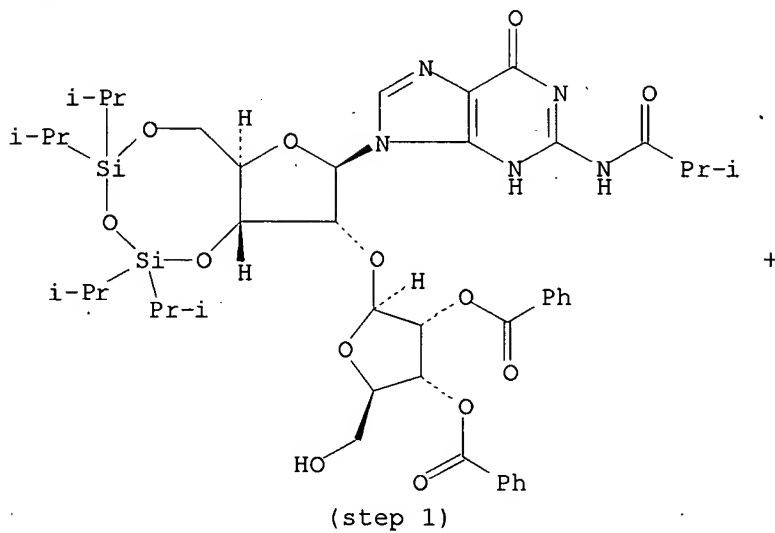
RX(4) OF 19



REF: Nucleosides, Nucleotides & Nucleic Acids, 22(4), 359-371; 2003  
CON: STAGE(1) 60 minutes, room temperature  
STAGE(2) 10 minutes, room temperature

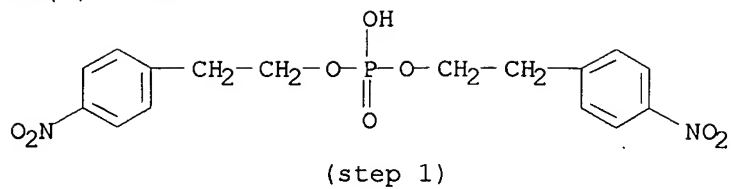
L3 ANSWER 7 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(5) OF 41



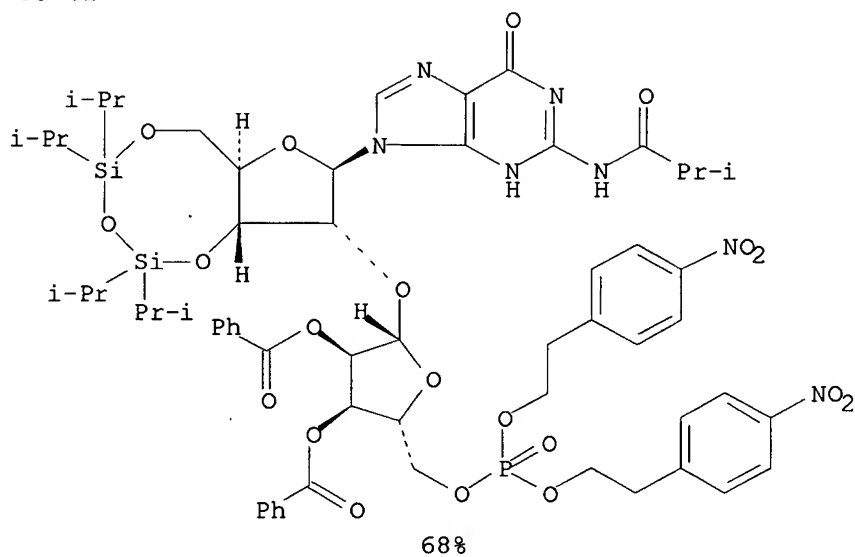


RX(5) OF 41



1. Et3N, Pyridine
2. (i-Pr)3SiCl,  
N-Methylimidazole,  
Pyridine
3. CHCl3
4. Water

RX(5) OF 41



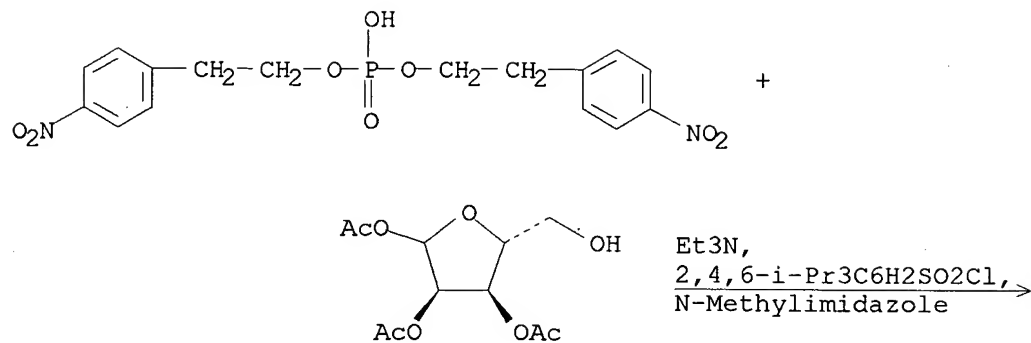
REF: Helvetica Chimica Acta, 86(2), 504-514; 2003

NOTE: phosphate buffered soln. used in last stage

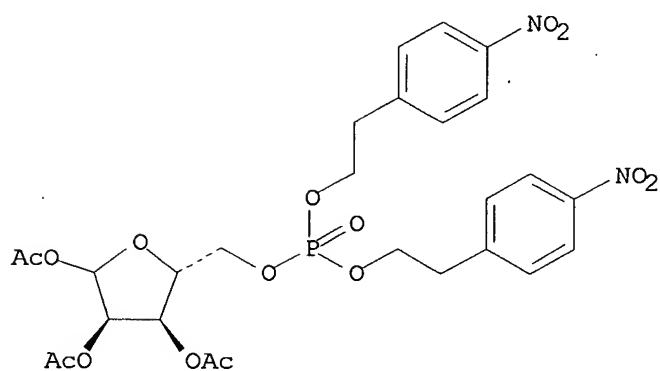
CON: STAGE(2) 4 hours, 20 deg C

STAGE(4) pH 7.0

RX(1) OF 20



RX(1) OF 20

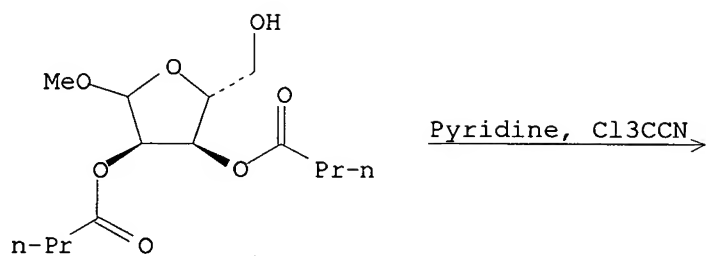
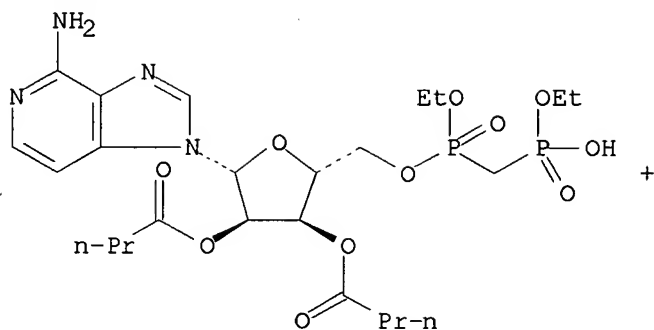


74%

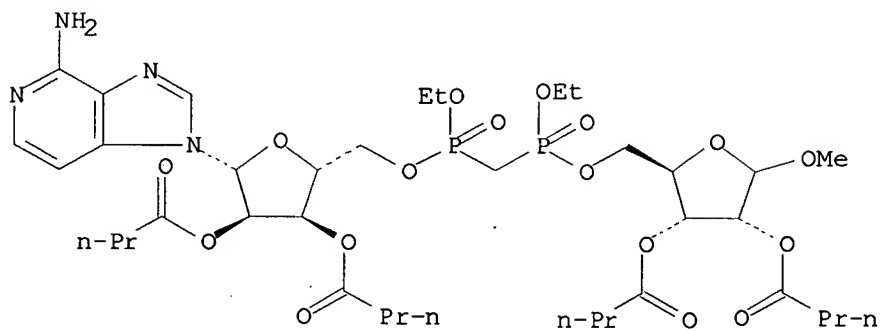
REF: Collection Symposium Series, 5 (Chemistry of Nucleic Acid Components), 312-315; 2002  
NOTE: stereoselective, isomer mix.

L3 ANSWER 9 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(5) OF 17

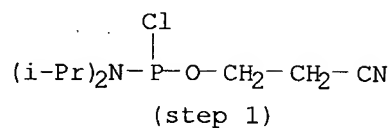
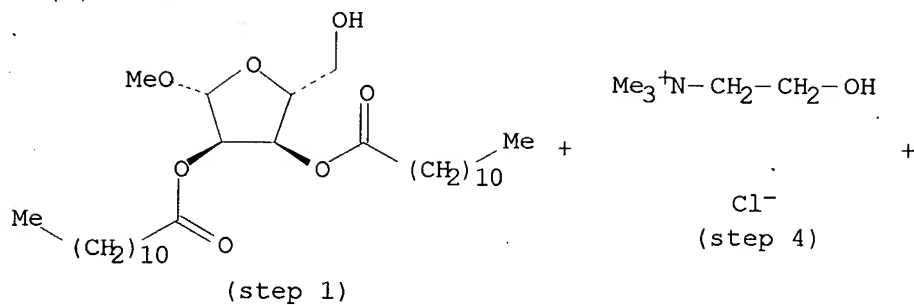


RX(5) OF 17



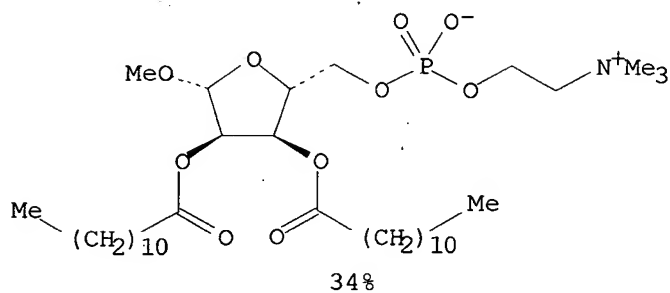
REF: U.S. Pat. Appl. Publ., 2003013869, 16 Jan 2003

RX(3) OF 16



1.  $\text{EtN}(\text{Pr-i})_2$ ,  $\text{CH}_2\text{Cl}_2$
2.  $\text{MeOH}$
3.  $\text{CH}_2\text{Cl}_2$
5. 1H-Tetrazole,  $\text{MeCN}$
6.  $\text{I}_2$ ,  $\text{THF}$ ,  $\text{Pyridine}$ ,  
Water
7.  $\text{F}_3\text{CCO}_2\text{H}$ , Water

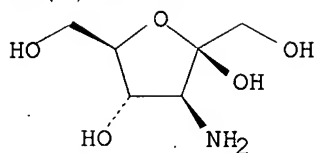
RX(3) OF 16



REF: Journal of the American Chemical Society, 124(21), 5983-5992; 2002

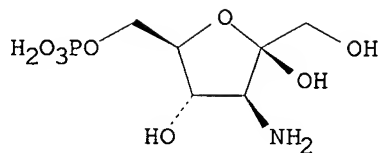
NOTE: stereoselective

RX(1) OF 56



(step 1)

1.  $\text{MgCl}_2$ , Citric acid,  
R:56-65-5, NaOH,  
Water
2. R:9001-51-8



87%

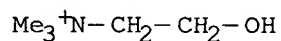
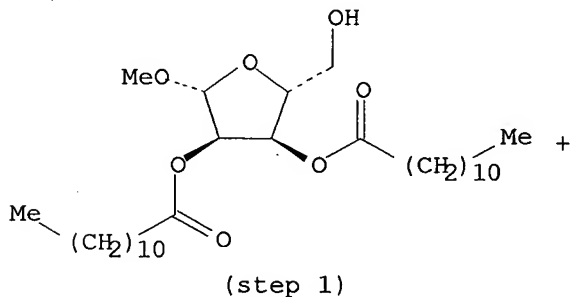
REF: Journal of the American Chemical Society, 124(4), 528-529; 2002  
NOTE: deionized water used in the first stage, attachment to AG-I X8  
anion exchange resin (acetate form) in third stage

L3 ANSWER 12 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

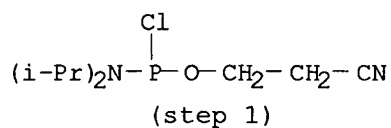
RX(7) OF 45 - REACTION DIAGRAM NOT AVAILABLE

L3 ANSWER 13 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(3) OF 6

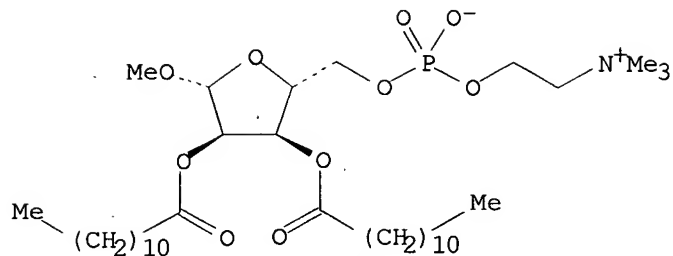


$\text{Cl}^-$   
(step 4)



1.  $\text{EtN}(\text{Pr-i})_2$ ,  $\text{CH}_2\text{Cl}_2$
2. MeOH
3.  $\text{NaHCO}_3$ ,  $\text{CH}_2\text{Cl}_2$
5. Tetrazole, MeCN
6. I2, THF, Pyridine,  
Water
7.  $\text{Et}_3\text{N}$

RX(3) OF 6



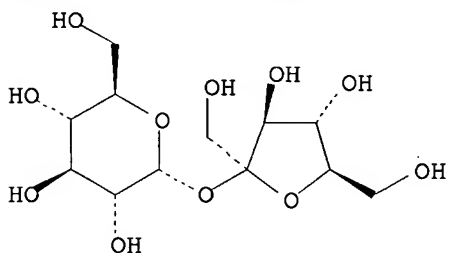
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REF: Journal of the American Chemical Society, 122(33), 8097-8098;  
2000

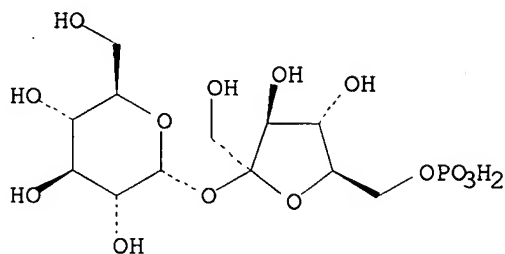
NOTE: STEREOSELECTIVE

L3 ANSWER 14 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(3) OF 3 - 2 STEPS



1. H<sub>2</sub>C:CM<sub>2</sub>OMe, TsOH,  
DMF  
2. POCl<sub>3</sub>, Pyridine,  
Water, MeCN



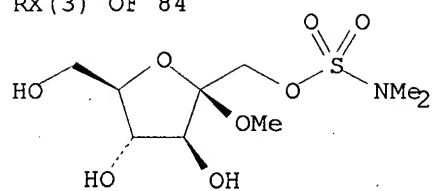
35%

REF: Carbohydrate Research, 270(1), 71-5; 1995

NOTE: 2) regioselective, key step

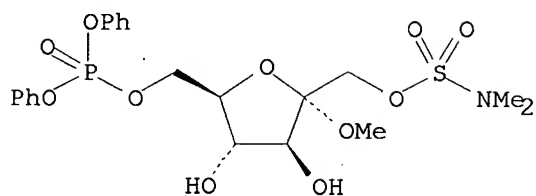
L3 ANSWER 15 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(3) OF 84



(step 1)  
stereoisomers

1. (PhO)<sub>2</sub>P(O)Cl,  
Pyridine, PhMe  
2. Water

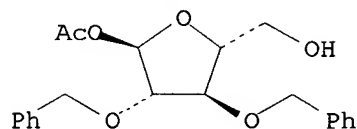


stereoisomers  
17%

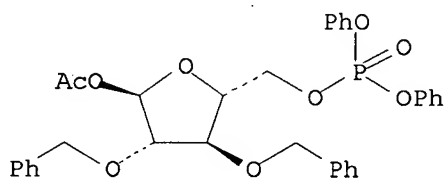
REF: Tetrahedron, 44(11), 3093-106; 1988

L3 ANSWER 16 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 10



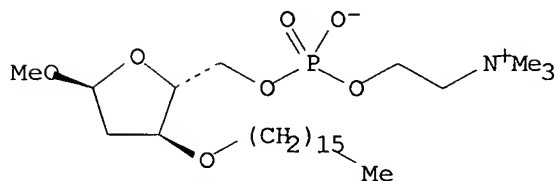
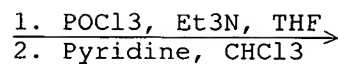
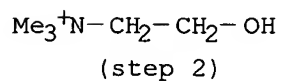
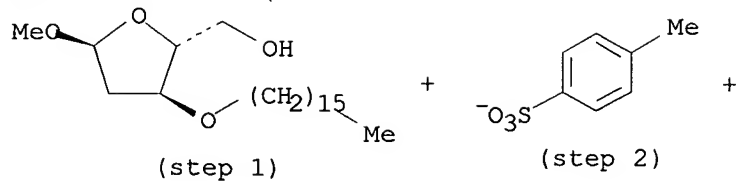
(PhO)<sub>2</sub>P(O)Cl



REF: U.S., 4745185, 17 May 1988

L3 ANSWER 17 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

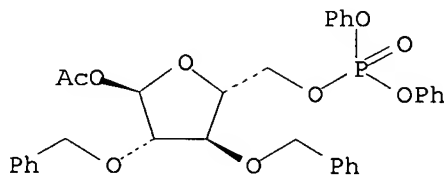
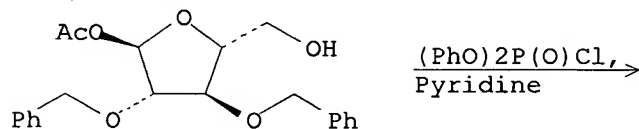
RX(7) OF 54



REF: Carbohydrate Research, 146(1), 89-96; 1986

L3 ANSWER 18 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(4) OF 21

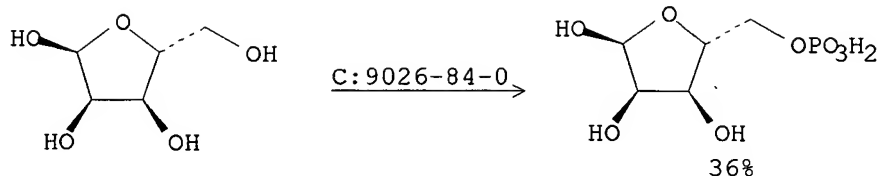


REF: Journal of the American Chemical Society, 106(25), 7851-3; 1984

L3 ANSWER 19 OF 21 CASREACT COPYRIGHT 2007 ACS on STN



RX(2) OF 6

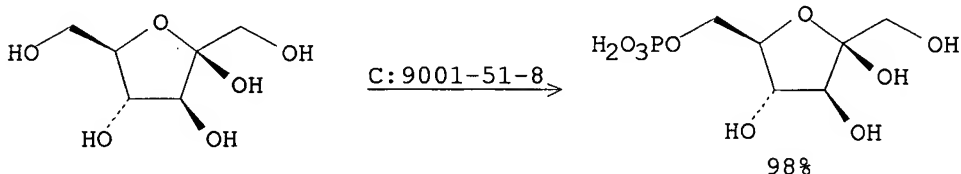


REF: Journal of the American Chemical Society, 105(25), 7428-35; 1983

NOTE: Biotransformation: catalyzed by ribokinase from lactobacillus plantarum; # Conditions: 100 mmol educt, 6 mmol di-na-atp, 15 mmol di-na-edta, 120 k-pep; 33 u ribokinase, 166 u pyruvate kinase, all pan immobilized; 1 ml water, 1 mm dtt, ph 6,9-7,1 maintained; 3,5 d

L3 ANSWER 20 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(5) OF 7

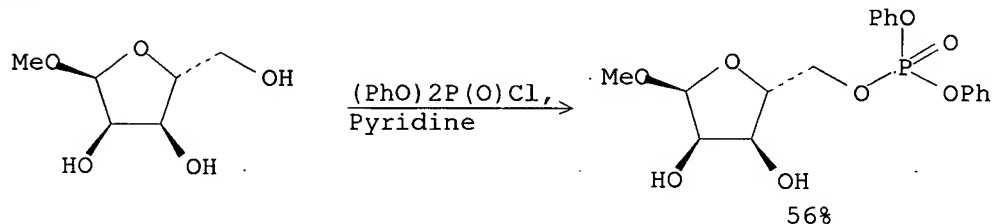


REF: Journal of Organic Chemistry, 48(19), 3199-205; 1983

NOTE: Biotransformation: catalyzed by hexokinase + acetate kinase; # Conditions: 0,2 mol fru, 0,21 mol acetyl-phosphate (10 portions), 5 mm 2-mercaptoethanol; 600 u hexokinase, 450 u acetate kinase, coimmobilized, 5 mm adp; 1000 ml volume, ph 7,2, 10 mm mgcl2; 20 h

L3 ANSWER 21 OF 21 CASREACT COPYRIGHT 2007 ACS on STN

RX(4) OF 8



REF: Journal of the American Chemical Society, 84,, 1879-89; 1962

NOTE: Classification: Phosphorylation; # Conditions: pyridine; cool 20mn; 20 deg overnight; # Comments: reactant not isolated

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY	SESSION
171.20	171.41

FILE 'CAPLUS' ENTERED AT 10:37:48 ON 21 NOV 2007  
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FILE COVERS 1907 - 21 Nov 2007 VOL 147 ISS 22  
FILE LAST UPDATED: 20 Nov 2007 (20071120/ED)

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=> d his

(FILE 'HOME' ENTERED AT 10:36:32 ON 21 NOV 2007)

FILE 'CASREACT' ENTERED AT 10:36:48 ON 21 NOV 2007

L1	STRUCTURE UPLOADED
L2	0 S L1
L3	21 S L1 FULL

FILE 'CAPLUS' ENTERED AT 10:37:48 ON 21 NOV 2007

=> s l3 and (phosphatase OR "Acid Phosphatase" OR "Phosphatases" OR "Enzymes")  
21 L3

130985 PHOSPHATASE  
28566 PHOSPHATASES  
137808 PHOSPHATASE

(PHOSPHATASE OR PHOSPHATASES)

4479536 "ACID"  
1601632 "ACIDS"  
4984600 "ACID"

("ACID" OR "ACIDS")

130985 "PHOSPHATASE"  
28566 "PHOSPHATASES"  
137808 "PHOSPHATASE"

("PHOSPHATASE" OR "PHOSPHATASES")

28454 "ACID PHOSPHATASE"  
("ACID" (W) "PHOSPHATASE")

28566 "PHOSPHATASES"  
475340 "ENZYMES"

L4 2 L3 AND (PHOSPHATASE OR "ACID PHOSPHATASE" OR "PHOSPHATASES" OR

"ENZYMES")

=> d l4 1-2 ibib hitrn

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:6966 CAPLUS

DOCUMENT NUMBER: 102:6966

TITLE: Stereoselective synthesis and biological activity of  
 $\beta$ - and  $\alpha$ -D-arabinose 1,5-diphosphate:  
analogues of a potent metabolic regulator

AUTHOR(S): Maryanoff, Bruce E.; Reitz, Allen B.; Tutwiler, Gene  
F.; Benković, Stephen J.; Benkovic, Patricia A.;  
Pilkis, Simon J.

CORPORATE SOURCE: Chem. Biol. Res. Dep., McNeil Pharm., Spring House,  
PA, 19477, USA

SOURCE: Journal of the American Chemical Society (1984),  
106(25), 7851-3

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 102:6966

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1984:2887 CAPLUS

DOCUMENT NUMBER: 100:2887

TITLE: Practical synthesis of 5-phospho-D-ribosyl  
 $\alpha$ -1-pyrophosphate (PRPP): enzymatic routes from  
ribose 5-phosphate or ribose

AUTHOR(S): Gross, Akiva; Abril, Obsidiana; Lewis, Jerome M.;  
Geresh, Shimona; Whitesides, George M.

CORPORATE SOURCE: Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA

SOURCE: Journal of the American Chemical Society (1983),  
105(25), 7428-35

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 100:2887

=> FIL STNGUIDE

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

13.35

184.76

FILE 'STNGUIDE' ENTERED AT 10:38:53 ON 21 NOV 2007

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LAST RELOADED: Nov 16, 2007 (20071116/UP).

=> d l4 1-2 ibib kwic

YOU HAVE REQUESTED DATA FROM FILE 'CAPLUS' - CONTINUE? (Y)/N:y

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:6966 CAPLUS  
DOCUMENT NUMBER: 102:6966  
TITLE: Stereoselective synthesis and biological activity of  
 $\beta$ - and  $\alpha$ -D-arabinose 1,5-diphosphate:  
analogs of a potent metabolic regulator  
AUTHOR(S): Maryanoff, Bruce E.; Reitz, Allen B.; Tutwiler, Gene  
F.; Benkovic, Stephen J.; Benkovic, Patricia A.;  
Pilkis, Simon J.  
CORPORATE SOURCE: Chem. Biol. Res. Dep., McNeil Pharm., Spring House,  
PA, 19477, USA  
SOURCE: Journal of the American Chemical Society (1984),  
106(25), 7851-3  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 102:6966  
AN 1985:6966 CAPLUS  
DN 102:6966  
ST arabinose diphosphate; phosphate arabinose; fructose diphosphate analog;  
metabolic regulator analog; phosphatase arabinose diphosphate;  
kinase arabinose diphosphate

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1984:2887 CAPLUS  
DOCUMENT NUMBER: 100:2887  
TITLE: Practical synthesis of 5-phospho-D-ribosyl  
 $\alpha$ -1-pyrophosphate (PRPP): enzymatic routes from  
ribose 5-phosphate or ribose  
AUTHOR(S): Gross, Akiva; Abril, Obsidiana; Lewis, Jerome M.;  
Geresh, Shimona; Whitesides, George M.  
CORPORATE SOURCE: Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA  
SOURCE: Journal of the American Chemical Society (1983),  
105(25), 7428-35  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 100:2887  
AN 1984:2887 CAPLUS  
DN 100:2887  
AB . . . for the isolation of PRPP synthetase (from Salmonella  
typhimurium) and ribokinase (from Lactobacillus plantarum) and for the  
immobilization of these enzymes in PAN.  
IT 25014-41-9  
RL: ANST (Analytical study)  
(enzymes immobilization on, for PRPP and UMP preparation)

=> d his

(FILE 'HOME' ENTERED AT 10:36:32 ON 21 NOV 2007)

FILE 'CASREACT' ENTERED AT 10:36:48 ON 21 NOV 2007

L1 STRUCTURE UPLOADED  
L2 0 S L1  
L3 21 S L1 FULL

FILE 'CAPLUS' ENTERED AT 10:37:48 ON 21 NOV 2007

E PHOSPHATASE+ALL/CT  
L4 2 S L3 AND (PHOSPHATASE OR "ACID PHOSPHATASE" OR "PHOSPHATASES" O

FILE 'STNGUIDE' ENTERED AT 10:38:53 ON 21 NOV 2007

FILE 'CAPLUS' ENTERED AT 10:40:49 ON 21 NOV 2007

FILE 'STNGUIDE' ENTERED AT 10:40:49 ON 21 NOV 2007

=> file stng

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.72

190.82

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

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=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.24

191.06

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

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STN INTERNATIONAL LOGOFF AT 10:50:36 ON 21 NOV 2007

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LOGINID:SSPTALDB1623

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

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NEWS 2 JUL 02 LMEDLINE coverage updated  
NEWS 3 JUL 02 SCISEARCH enhanced with complete author names  
NEWS 4 JUL 02 CHEMCATS accession numbers revised  
NEWS 5 JUL 02 CA/CAPLUS enhanced with utility model patents from China  
NEWS 6 JUL 16 CAPLUS enhanced with French and German abstracts  
NEWS 7 JUL 18 CA/CAPLUS patent coverage enhanced  
NEWS 8 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification  
NEWS 9 JUL 30 USGENE now available on STN  
NEWS 10 AUG 06 CAS REGISTRY enhanced with new experimental property tags  
NEWS 11 AUG 06 FSTA enhanced with new thesaurus edition  
NEWS 12 AUG 13 CA/CAPLUS enhanced with additional kind codes for granted patents  
NEWS 13 AUG 20 CA/CAPLUS enhanced with CAS indexing in pre-1907 records  
NEWS 14 AUG 27 Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB  
NEWS 15 AUG 27 USPATOLD now available on STN  
NEWS 16 AUG 28 CAS REGISTRY enhanced with additional experimental spectral property data  
NEWS 17 SEP 07 STN AnaVist, Version 2.0, now available with Derwent World Patents Index  
NEWS 18 SEP 13 FORIS renamed to SOFIS  
NEWS 19 SEP 13 INPADOCDB enhanced with monthly SDI frequency  
NEWS 20 SEP 17 CA/CAPLUS enhanced with printed CA page images from 1967-1998  
NEWS 21 SEP 17 CAPLUS coverage extended to include traditional medicine patents  
NEWS 22 SEP 24 EMBASE, EMBAL, and LEMBASE reloaded with enhancements  
NEWS 23 OCT 02 CA/CAPLUS enhanced with pre-1907 records from Chemisches Zentralblatt  
NEWS 24 OCT 19 BEILSTEIN updated with new compounds  
NEWS 25 NOV 15 Derwent Indian patent publication number format enhanced  
NEWS 26 NOV 19 WPIX enhanced with XML display format  
  
NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.  
  
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NEWS IPC8 For general information regarding STN implementation of IPC 8

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FILE 'HOME' ENTERED AT 14:11:44 ON 21 NOV 2007

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 14:12:07 ON 21 NOV 2007

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STRUCTURE FILE UPDATES: 20 NOV 2007 HIGHEST RN 955158-15-3

DICTIONARY FILE UPDATES: 20 NOV 2007 HIGHEST RN 955158-15-3

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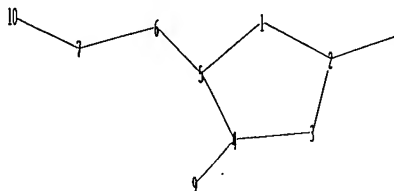
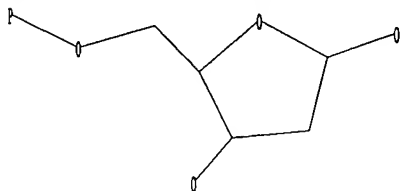
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10578912\product.str



chain nodes :

6 7 8 9 10

ring nodes :

1 2 3 4 5

chain bonds :

2-8 4-9 5-6 6-7 7-10

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-2 1-5 2-3 2-8 3-4 4-5 4-9 6-7 7-10

exact bonds :

5-6

Match level :

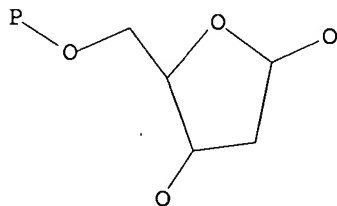
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 14:12:19 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 272 TO ITERATE

100.0% PROCESSED 272 ITERATIONS  
SEARCH TIME: 00.00.01

27 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 4451 TO 6429

PROJECTED ANSWERS: 229 TO 851

L2 27 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 14:12:24 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 5833 TO ITERATE

100.0% PROCESSED 5833 ITERATIONS  
SEARCH TIME: 00.00.01

618 ANSWERS

L3 618 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.31

FILE 'CAPLUS' ENTERED AT 14:12:29 ON 21 NOV 2007

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=> s 13

L4 2711 L3

=> s 14 and bpn/rl

137933 BPN/RL

L5 58 L4 AND BPN/RL

=> d scan

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN

CC 7-2 (Enzymes)

Section cross-reference(s): 10

TI Identification and Active Expression of the Mycobacterium tuberculosis Gene Encoding 5-Phospho- $\alpha$ -D-ribose-1-diphosphate:Decaprenyl-phosphate 5-Phosphoribosyltransferase, the First Enzyme Committed to Decaprenylphosphoryl-D-arabinose Synthesis

ST Mycobacterium decaprenyl phosphate phosphoribosyltransferase gene Rv3806c decaprenylphosphoryl arabinose biosynthesis

IT Enzymes, biological studies

RL: **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation)

(5-Phospho- $\alpha$ -D-ribose-1-diphosphate:decaprenyl-phosphate 5-phosphoribosyltransferase; heterologous expression and biochem. characterization of gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from Mycobacterium tuberculosis)

IT Gene, microbial

RL: BSU (Biological study, unclassified); BIOL (Biological study) (Rv3806c; heterologous expression and biochem. characterization of gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from Mycobacterium tuberculosis)

IT Michaelis constant

Mycobacterium tuberculosis

(heterologous expression and biochem. characterization of gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from Mycobacterium

tuberculosis)

IT Protein motifs  
(transmembrane domain; heterologous expression and biochem. characterization of gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from Mycobacterium tuberculosis)

IT 7439-95-4, Magnesium, biological studies 168037-27-2  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(heterologous expression and biochem. characterization of gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from Mycobacterium tuberculosis)

IT 7540-64-9, 5-Phospho- $\alpha$ -D-ribose-1-diphosphate 124050-72-2  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(substrate; heterologous expression and biochem. characterization of gene Rv3806c decaprenyl-phosphate phosphoribosyltransferase from Mycobacterium tuberculosis)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN

CC 7-2 (Enzymes)  
Section cross-reference(s): 3, 11

TI Purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase

ST fructose 1 6 bisphosphatase expression protein sequence kinetics pea

IT Reaction kinetics  
(frequency factor; purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

IT Enzyme kinetics  
(of inhibition, for AMP and fructose-2,6-bisphosphate; purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

IT Activation energy  
Cytoplasm  
Enzyme kinetics  
Michaelis constant  
Pisum sativum  
Protein sequences  
cDNA sequences  
(purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

IT 482118-18-3  
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(amino acid sequence; purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

IT 61-19-8, 5'-AMP, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibition kinetics; purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

IT 421778-04-3  
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(nucleotide sequence; purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

IT 9001-52-9P, Fructose-1,6-bisphosphatase  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP

(Preparation)

(purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

IT 77164-51-3, Fructose-2,6-bisphosphate

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN

CC 7-3 (Enzymes)

TI O-ADP-ribosylation in the NAD/NADase system: 2-alkanols as efficient substrates

ST alkanol specificity ADP ribosylation NADase

IT ADP ribosylation

(ADP-ribosylation of 2-alkanols in NAD/NADase system)

IT Alcohols, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(secondary; ADP-ribosylation of 2-alkanols in NAD/NADase system)

IT 9032-65-9, NADase

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(ADP-ribosylation of 2-alkanols in NAD/NADase system)

IT 67-63-0, 2-Propanol, biological studies 78-92-2, 2-Butanol 626-93-7, 2-Hexanol 6032-29-7, 2-Pentanol

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(ADP-ribosylation of 2-alkanols in NAD/NADase system)

IT 53-84-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(ADP-ribosylation of 2-alkanols in NAD/NADase system)

IT 331830-75-2P 331830-77-4P 331830-79-6P

331830-81-0P 331830-83-2P 331830-85-4P

331830-87-6P 331830-88-7P

RL: **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)

(alkanol specificity in ADP-ribosylation by NAD/NADase system)

IT 57-55-6, 1,2-Propanediol, biological studies 71-23-8, 1-Propanol, biological studies 584-02-1, 3-Pentanol 625-69-4, 2,4-Pentanediol

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(alkanol specificity in ADP-ribosylation by NAD/NADase system)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN

CC 10-5 (Microbial, Algal, and Fungal Biochemistry)

TI ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene

ST ADP ribosylation rifampin inactivation Mycobacterium

IT ADP ribosylation

Antibiotic resistance

Mycobacterium smegmatis

(ADP-ribosylation as an intermediate step in inactivation of rifampin)

by a mycobacterial gene)

IT Protein motifs  
(glycosylation site; ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)

IT 13292-46-1, Rifampin  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)

IT 58-68-4, NADH  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)

IT **221910-89-0**  
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); PRP (Properties); BIOL (Biological study); FORM (Formation, nonpreparative)  
(ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)

IT 58319-92-9P, Mono(ADP-ribosyl)transferase  
RL: BAC (Biological activity or effector, except adverse); **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)  
(recombinant; ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN

CC 33-2 (Carbohydrates)  
Section cross-reference(s): 7, 9, 22

TI Steady-State Measurements on Fructose 6-Phosphate/Fructose 1,6-Bisphosphate Interconversion Cycle

ST phosphorylation dephosphorylation fructose phosphate enzymic; fructose phosphate glycolysis steady state measurement

IT Phosphorylation  
(enzymic; steadystate measurements on fructose phosphate fructose bisphosphate interconversion cycle)

IT Dephosphorylation, biological  
(steadystate measurements on fructose phosphate fructose bisphosphate interconversion cycle)

IT 488-69-7P, Fructose 1,6-bisphosphate 76774-41-9P, Fructose 6-phosphatase  
RL: **BPN (Biosynthetic preparation)**; RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(steady-state measurements on fructose phosphate-fructose bisphosphate interconversion cycle)

IT 56-65-5P, Atp, preparation 57-03-4P, Glycerol 3-phosphate 61-19-8P, Amp, preparation **77164-51-3P**, Fructose 2,6-bisphosphate  
RL: **BPN (Biosynthetic preparation)**; RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(steadystate measurements on fructose phosphate fructose bisphosphate interconversion cycle)

IT 9001-52-9, Fructose 1,6-bisphosphatase 9001-79-0, Creatine phosphatase 9001-80-3, Phosphofructokinase 1  
RL: CAT (Catalyst use); USES (Uses)  
(steadystate measurements on fructose phosphate fructose bisphosphate

interconversion cycle)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN  
CC 7-5 (Enzymes)  
Section cross-reference(s): 1, 75  
TI Crystal Structure of the Hypoxia-inducible Form of 6-Phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3): A possible new target for cancer therapy  
ST crystal structure phosphofructo kinase fructose bisphosphatase PFKFB3 drug design  
IT Enzyme functional sites  
(active; crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))  
IT Drug design  
Human  
(crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))  
IT Conformation  
(hairpin loop; crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))  
IT Crystal structure  
(of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))  
IT Conformation  
Quaternary structure  
(protein; crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))  
IT Enzyme functional sites  
(substrate-binding; crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))  
IT 58-64-ODP, 5'-ADP, complexes with 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase, ADP, EDTA fructose-2,6-bisphosphate 60-00-4DP, EDTA, complex with 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase and ADP 78689-77-7DP, 6-Phosphofructo-2-kinase, fructose-2,6-bisphosphatase 78689-77-7DP, 6-Phosphofructo-2-kinase, fructose-2,6-bisphosphatase, complexes **79082-92-1DP**, complex with 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase and ADP  
RL: **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation)  
(crystal structure of hypoxia-inducible form of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PFKFB3))

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN  
CC 10-2 (Microbial, Algal, and Fungal Biochemistry)  
Section cross-reference(s): 4  
TI Formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1  
ST formaldehyde oxidn detoxification tetrahydromethanopterin pathway Methylobacterium  
IT Methylobacterium extorquens  
(AM1; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)

IT Metabolic pathways  
(C1 carbon metabolic pathway; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)

IT Enzymes, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(Dihydromethanopterin reductase, gene *dmrA*; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)

IT Gene, microbial  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(*dmrA*; mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)

IT Gene, microbial  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(*fae*; mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)

IT Gene, microbial  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(*fghA*; mol. cloning of GSH-dependent formaldehyde oxidation system of *Paracoccus denitrificans* in tetrahydromethanopterin pathway mutants of *Methylobacterium extorquens* AM1)

IT Gene, microbial  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(*flhA*; mol. cloning of GSH-dependent formaldehyde oxidation system of *Paracoccus denitrificans* in tetrahydromethanopterin pathway mutants of *Methylobacterium extorquens* AM1)

IT *Paracoccus denitrificans*  
(heterologous GSH-dependent formaldehyde oxidation system alleviates the methanol sensitivity of tetrahydromethanopterin pathway mutants in *Methylobacterium extorquens* AM1)

IT Gene, microbial  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(*mtdB*; mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)

IT Mutagenesis  
(mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)

IT Molecular cloning  
(of GSH-dependent formaldehyde oxidation system of *Paracoccus denitrificans* in tetrahydromethanopterin pathway mutants of *Methylobacterium extorquens* AM1)

IT Gene, microbial  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(*orf4*; mutation study of the formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)

IT 50-00-0, Formaldehyde, biological studies  
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)  
(formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)

IT 67-56-1, Methanol, biological studies 92481-94-2,

- Tetrahydromethanopterin 216503-92-3, NADP-dependent methylenetetrahydromethanopterin dehydrogenase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)
- IT 353294-86-7, Formaldehyde-activating enzyme  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (gene fae; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)
- IT 83380-83-0P, S-Formylglutathione hydrolase  
 RL: **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)  
 (gene fghA; heterologous GSH-dependent formaldehyde oxidation system alleviates the methanol sensitivity of tetrahydromethanopterin pathway mutants in Methylobacterium extorquens AM1)
- IT 9028-84-6P, Formaldehyde dehydrogenase  
 RL: **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)  
 (gene flhA; heterologous GSH-dependent formaldehyde oxidation system alleviates the methanol sensitivity of tetrahydromethanopterin pathway mutants in Methylobacterium extorquens AM1)
- IT 9029-14-5, Methylenetetrahydrofolate dehydrogenase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (gene mtdB; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)
- IT 212625-38-2, 4-( $\beta$ -D-Ribofuranosyl)aminobenzene 5'-phosphate synthase\*  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (gene orf4; formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in Methylobacterium extorquens AM1)
- IT 70-18-8, GSH, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (heterologous GSH-dependent formaldehyde oxidation system alleviates the methanol sensitivity of tetrahydromethanopterin pathway mutants in Methylobacterium extorquens AM1)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L5 58 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN  
 IC ICM C07K  
 CC 33-9 (Carbohydrates)  
 Section cross-reference(s): 1
- TI Process for selectively producing 1-phosphorylated sugar derivative anomer and process for producing nucleoside
- ST phosphorylated sugar anomer prepn intermediate nucleoside; nucleoside prepn nucleoside phosphorylase; phosphorylation isomerization phosphorylated sugar
- IT Carbohydrates, preparation  
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (aldoses, pentose 1-phosphoric acid esters; selective preparation of 1-phosphorylated sugar derivative anomer by phosphorylation, isomerization, and fractional crystallization and process for producing nucleoside by glycosylation using nucleoside phosphorylase)
- IT Glycosylation  
 (biol.; selective preparation of 1-phosphorylated sugar derivative anomer by

phosphorylation, isomerization, and fractional crystallization and process  
for  
producing nucleoside by glycosylation using nucleoside phosphorylase)

IT Crystallization  
(fractional; selective preparation of 1-phosphorylated sugar derivative  
anomer  
by phosphorylation, isomerization, and fractional crystallization and  
process  
for producing nucleoside by glycosylation using nucleoside  
phosphorylase)

IT Isomerization  
Phosphorylation  
(selective preparation of 1-phosphorylated sugar derivative anomer by  
phosphorylation, isomerization, and fractional crystallization and process  
for  
producing nucleoside by glycosylation using nucleoside phosphorylase)

IT Nucleosides, preparation  
RL: **BPN (Biosynthetic preparation)**; THU (Therapeutic use); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(selective preparation of 1-phosphorylated sugar derivative anomer by  
phosphorylation, isomerization, and fractional crystallization and process  
for  
producing nucleoside by glycosylation using nucleoside phosphorylase)

IT 9030-21-1P, Purine nucleoside phosphorylase  
RL: **BPN (Biosynthetic preparation)**; CAT (Catalyst use); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(enzymic glycosylation; selective preparation of 1-phosphorylated sugar  
derivative anomer by phosphorylation, isomerization, and fractional  
crystallization  
and process for producing nucleoside by glycosylation using nucleoside  
phosphorylase)

IT 1309-42-8, Magnesium hydroxide 7446-70-0, Aluminum chloride, uses  
9030-22-2, Uridine phosphorylase 9030-23-3, Thymidine phosphorylase  
9030-28-8, Guanosine phosphorylase 9055-35-0, Pyrimidine nucleoside  
phosphorylase 9059-37-4, Nucleoside phosphorylase 10043-52-4, Calcium  
chloride, uses 10124-37-5, Calcium nitrate 10361-37-2, Barium  
chloride, uses 37277-77-3, Deoxyuridine phosphorylase  
RL: CAT (Catalyst use); USES (Uses)  
(enzymic glycosylation; selective preparation of 1-phosphorylated sugar  
derivative anomer by phosphorylation, isomerization, and fractional  
crystallization  
and process for producing nucleoside by glycosylation using nucleoside  
phosphorylase)

IT 50-89-5P, Thymidine, preparation 58-61-7P, Adenosine, preparation  
958-09-8P, 2'-Deoxyadenosine 961-07-9P, 2'-Deoxyguanosine 2239-64-7P  
4097-22-7P, 2',3'-Dideoxyadenosine 4229-57-6P 4291-63-8P,  
2-Chloro-2'-deoxyadenosine 4318-06-3P 4546-70-7P 4546-73-0P  
5399-87-1P, 6-Chloro-9-( $\beta$ -D-ribofuranosyl)purine 5536-17-4P,  
9- $\beta$ -D-Arabinofuranosyladenine 36791-04-5P, 1-( $\beta$ -D-  
Ribofuranosyl)-1,2,4-triazole-3-carboxamide 92562-88-4P 120595-72-4P  
125178-07-6P 175908-23-3P 354823-77-1P 354823-78-2P  
RL: **BPN (Biosynthetic preparation)**; BIOL (Biological study);  
PREP (Preparation)  
(selective preparation of 1-phosphorylated sugar derivative anomer by  
phosphorylation, isomerization, and fractional crystallization and process  
for  
producing nucleoside by glycosylation using nucleoside phosphorylase)



IT 2627-69-2, 1-( $\beta$ -D-Ribofuranosyl)-5-aminoimidazole-4-carboxamide  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (selective preparation of 1-phosphorylated sugar derivative anomer by  
 phosphorylation, isomerization, and fractional crystallization and process  
 for  
 producing nucleoside by glycosylation using nucleoside phosphorylase)  
 IT 50-44-2, 6-Mercaptopurine 65-71-4, Thymine 73-24-5, Adenine, reactions  
 73-40-5, Guanine 87-42-3, 6-Chloropurine 102-82-9, Tributylamine  
 108-91-8, Cyclohexylamine, reactions 134-58-7, 8-Azaguanine 273-21-2,  
 4-Azabenzimidazole 360-97-4, 5-Aminoimidazole-4-carboxamide 1123-54-2,  
 8-Azaadenine 1839-18-5, 2-Chloro-6-aminopurine 1904-98-9,  
 2,6-Diaminopurine 3641-08-5, 1,2,4-Triazole-3-carboxamide 7664-38-2,  
 Orthophosphoric acid, reactions 10310-21-1, 2-Amino-6-chloropurine  
 19690-23-4, 2-Amino-6-iodopurine 19962-37-9 21740-23-8 68045-07-8  
 120503-69-7 125598-74-5 132575-50-9 307002-00-2 354823-27-1  
 354823-64-6 354823-74-8 355004-14-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (selective preparation of 1-phosphorylated sugar derivative anomer by  
 phosphorylation, isomerization, and fractional crystallization and process  
 for  
 producing nucleoside by glycosylation using nucleoside phosphorylase)  
 IT 102783-28-8P 354823-22-6P 354823-24-8P 354823-29-3P 354823-30-6P  
 354823-32-8P 354823-36-2P 354823-41-9P 354823-45-3P 354823-48-6P  
 354823-51-1P 354823-54-4P 354823-58-8P 354823-59-9P 354823-63-5P  
 354823-66-8P 354823-68-0P 354823-73-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (selective preparation of 1-phosphorylated sugar derivative anomer by  
 phosphorylation, isomerization, and fractional crystallization and process  
 for  
 producing nucleoside by glycosylation using nucleoside phosphorylase)  
 IT 354823-61-3P 354823-70-4P **354823-76-0P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (selective preparation of 1-phosphorylated sugar derivative anomer by  
 phosphorylation, isomerization, and fractional crystallization and process  
 for  
 producing nucleoside by glycosylation using nucleoside phosphorylase)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

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(FILE 'HOME' ENTERED AT 14:11:44 ON 21 NOV 2007)

FILE 'REGISTRY' ENTERED AT 14:12:07 ON 21 NOV 2007

L1 STRUCTURE UPLOADED

L2 27 S L1

L3 618 S L1 FULL

FILE 'CAPLUS' ENTERED AT 14:12:29 ON 21 NOV 2007

L4 2711 S L3

L5 58 S L4 AND BPN/RL

=> s l5 and py<=2003

23955985 PY<=2003

L6 41 L5 AND PY<=2003

=> d 16 1-41 ibib hitstr

L6 ANSWER 1 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:982932 CAPLUS

DOCUMENT NUMBER: 140:160288

TITLE: Formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1

AUTHOR(S): Marx, Christopher J.; Chistoserdova, Ludmila; Lidstrom, Mary E.

CORPORATE SOURCE: Department of Microbiology, University of Washington, Seattle, WA, 98195, USA

SOURCE: Journal of Bacteriology (2003), 185(24), 7160-7168

CODEN: JOBAAY; ISSN: 0021-9193

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

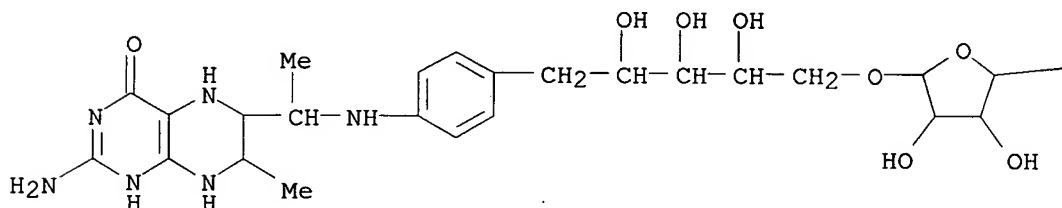
IT 92481-94-2, Tetrahydromethanopterin

RL: BSU (Biological study, unclassified); BIOL (Biological study) (formaldehyde-detoxifying role of the tetrahydromethanopterin-linked pathway in *Methylobacterium extorquens* AM1)

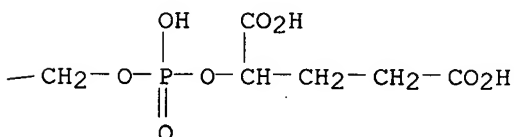
RN 92481-94-2 CAPLUS

CN D-Ribitol, 1-[4-[[[(1R)-1-[(6S,7S)-2-amino-1,4,5,6,7,8-hexahydro-7-methyl-4-oxo-6-pteridinyl]ethyl]amino]phenyl]-1-deoxy-5-O-[5-O-[[[(1S)-1,3-dicarboxypropoxy]hydroxyphosphinyl]- $\alpha$ -D-ribofuranosyl]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

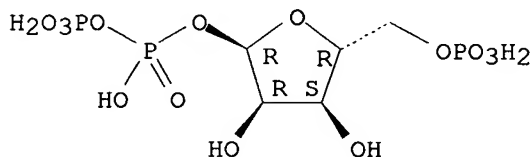
ACCESSION NUMBER: 2003:552228 CAPLUS

DOCUMENT NUMBER: 139:271852

TITLE: Functional dissection of the *Bacillus subtilis* pur

operator site  
 AUTHOR(S): Bera, Alok Kumar; Zhu, Jianghai; Zalkin, Howard;  
 Smith, Janet L.  
 CORPORATE SOURCE: Department of Biological Sciences, Purdue University,  
 West Lafayette, IN, 47907, USA  
 SOURCE: Journal of Bacteriology (2003), 185(14),  
 4099-4109  
 CODEN: JOBAA; ISSN: 0021-9193  
 PUBLISHER: American Society for Microbiology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT **7540-64-9**, Phosphoribosylpyrophosphate  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (functional dissection of the Bacillus subtilis pur operator site,  
 including interaction of PurBoxes with PurR and crystal structure of  
 PurR complexed with PRPP analog)  
 RN 7540-64-9 CAPLUS  
 CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen  
 diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:291829 CAPLUS

DOCUMENT NUMBER: 139:18015

TITLE: Application of a colorimetric assay to identify  
 putative ribofuranosylaminobenzene 5'-phosphate  
 synthase genes expressed with activity in Escherichia  
 coli

AUTHOR(S): Bechard, Matthew E.; Chhatwal, Sonya; Garcia,  
 Rosemarie E.; Rasche, Madeline E.

CORPORATE SOURCE: Microbiology Cell Sci. Dep., Univ. Florida,  
 Gainesville, FL, 32611-0700, USA

SOURCE: Biological Procedures Online (2003), 5(1),  
 69-77  
 CODEN: BLPOF8; ISSN: 1480-9222  
 URL: <http://www.biologicalprocedures.com/bpo/arts/1/48/m48.pdf>

PUBLISHER: Biological Procedures Online

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

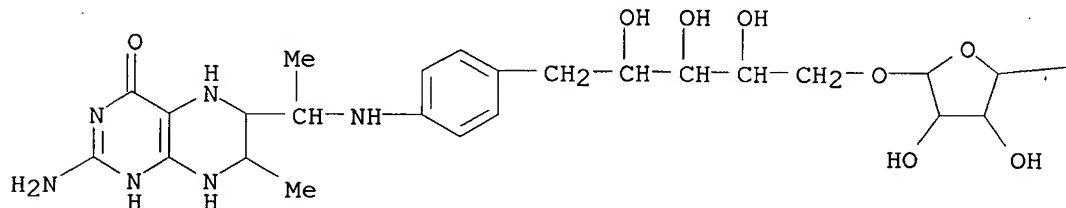
IT **92481-94-2**, Tetrahydromethanopterin

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (tetrahydromethanopterin (H4MPT); application of colorimetric assay to  
 identify archaeal ribofuranosylaminobenzene 5'-phosphate synthase genes  
 expressed with activity in E. coli)

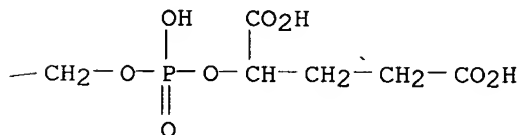
RN 92481-94-2 CAPLUS

CN D-Ribitol, 1-[4-[[[(1R)-1-[(6S,7S)-2-amino-1,4,5,6,7,8-hexahydro-7-methyl-4-oxo-6-pteridiny]ethyl]amino]phenyl]-1-deoxy-5-O-[5-O-[[[(1S)-1,3-dicarboxypropoxy]hydroxyphosphinyl]-α-D-ribofuranosyl]- (CA INDEX NAME)

PAGE 1-A

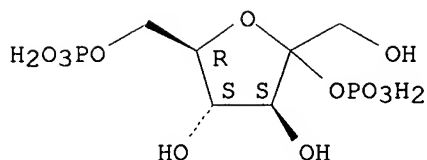


PAGE 1-B



L6 ANSWER 4 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2003:206503 CAPLUS  
 DOCUMENT NUMBER: 139:129722  
 TITLE: Purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase  
 AUTHOR(S): Jang, Hye-Kyung; Lee, Sang-Won; Lee, Youn-Hyung; Hahn, Tae-Ryong  
 CORPORATE SOURCE: Plant Metabolism Research Center (PMRC) and Graduate School of Biotechnology, Kyung Hee University, Suwon, 449-701, S. Korea  
 SOURCE: Protein Expression and Purification (2003), 28(1), 42-48  
 CODEN: PEXPEJ; ISSN: 1046-5928  
 PUBLISHER: Elsevier Science  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 77164-51-3, Fructose-2,6-bisphosphate  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (purification and characterization of a recombinant pea cytoplasmic fructose-1,6-bisphosphatase)  
 RN 77164-51-3 CAPLUS  
 CN D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:870121 CAPLUS

DOCUMENT NUMBER: 137:351603

TITLE: 1,6-Fructose diphosphate strontium compounds and their preparing process and medical application

INVENTOR(S): Ouyang, Pingkai; Ying, Hanjie; Zhao, Gulin; Xu, Yi; Cheng, Yanju

PATENT ASSIGNEE(S): Nanjing Chemical Univ., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 19 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
CN 1342653	A	20020403	CN 2001-127286	20010929 <--
PRIORITY APPLN. INFO.:			CN 2001-127286	20010929

IT **474417-09-9P 474417-10-2P 474417-11-3P**

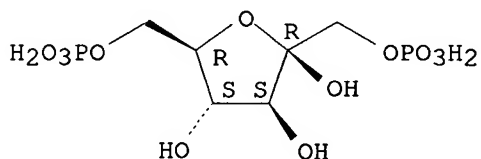
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(fructose diphosphate strontium salts manufacture and medical application)

RN 474417-09-9 CAPLUS

CN  $\beta$ -D-Fructofuranose, 1,6-bis(dihydrogen phosphate), strontium salt (1:1) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

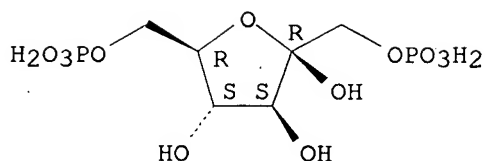


● Sr

RN 474417-10-2 CAPLUS

CN  $\beta$ -D-Fructofuranose, 1,6-bis(dihydrogen phosphate), strontium salt (1:2) (9CI) (CA INDEX NAME)

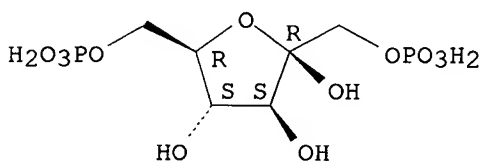
Absolute stereochemistry.



●2 Sr

RN 474417-11-3 CAPLUS  
 CN  $\beta$ -D-Fructofuranose, 1,6-bis(dihydrogen phosphate), strontium salt  
 (2:3) (9CI) (CA INDEX NAME)

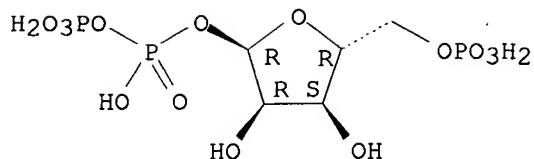
Absolute stereochemistry.



●3/2 Sr

L6 ANSWER 6 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:783224 CAPLUS  
 DOCUMENT NUMBER: 138:85500  
 TITLE: The Adenine Phosphoribosyltransferase from Giardia  
 lamblia Has a Unique Reaction Mechanism and Unusual  
 Substrate Binding Properties  
 AUTHOR(S): Sarver, Anne E.; Wang, Ching C.  
 CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of  
 California, San Francisco, CA, 94143-0446, USA  
 SOURCE: Journal of Biological Chemistry (2002),  
 277(42), 39973-39980  
 CODEN: JBCHA3; ISSN: 0021-9258  
 PUBLISHER: American Society for Biochemistry and Molecular  
 Biology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 7540-64-9,  $\alpha$ -D-5-Phosphoribosyl-1-pyrophosphate  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL  
 (Biological study)  
 (substrate, kinetic parameters; reaction mechanism and substrate  
 binding properties of adenine phosphoribosyltransferase from Giardia  
 lamblia)  
 RN 7540-64-9 CAPLUS  
 CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen  
 diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:732431 CAPLUS

DOCUMENT NUMBER: 138:122773

TITLE: Enzymatic synthesis of D-glucosone 6-phosphate (D-arabino-hexos-2-ulose 6-(dihydrogen phosphate)) and NMR analysis of its isomeric forms

AUTHOR(S): Freimund, Stefan; Baldes, Lars; Huwig, Alexander; Giffhorn, Friedrich

CORPORATE SOURCE: Lehrstuhl für Angewandte Mikrobiologie, Universität des Saarlandes, Saarbrücken, D-66041, Germany

SOURCE: Carbohydrate Research (2002), 337(17), 1585-1587

CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:122773

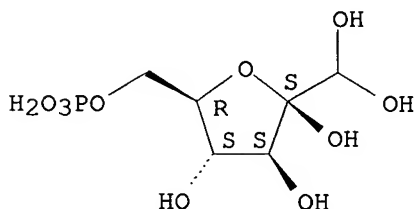
IT **490033-46-0P**

RL: **BPN (Biosynthetic preparation)**; PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation) (preparation and purification of D-glucosone 6-phosphate isomers via enzymic conversion with hexokinase)

RN 490033-46-0 CAPLUS

CN  $\beta$ -D-arabino-Hexos-2-ulo-2,5-furanose, 1-hydrate, 6-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

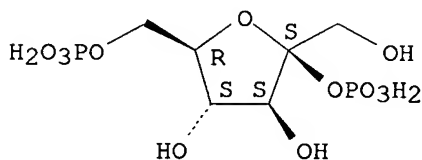
ACCESSION NUMBER: 2002:177711 CAPLUS

DOCUMENT NUMBER: 137:75092

TITLE: Molecular characterization of a phosphoenolpyruvate carboxylase from a thermophilic cyanobacterium, Synechococcus vulcanus with unusual allosteric properties

AUTHOR(S): Chen, Li-Mei; Omiya, Takuma; Hata, Shingo; Izui, Katsura  
 CORPORATE SOURCE: Laboratory of Plant Physiology, Graduate School of Agriculture, Kyoto University, Kyoto, 606-8502, Japan  
 SOURCE: Plant and Cell Physiology (2002), 43(2), 159-169  
 CODEN: PCPHA5; ISSN: 0032-0781  
 PUBLISHER: Japanese Society of Plant Physiologists  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 79082-92-1, Fructose 2,6-bisphosphate  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of phosphoenolpyruvate carboxylase of Synechococcus vulcanus by)  
 RN 79082-92-1 CAPLUS  
 CN  $\beta$ -D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.

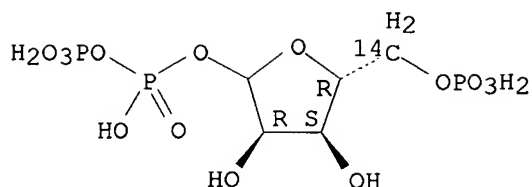


REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:15344 CAPLUS  
 DOCUMENT NUMBER: 136:355376  
 TITLE: Enzymatic Synthesis of [5-14C]Ribose  
 AUTHOR(S): Ogbunude, P. O. J.  
 CORPORATE SOURCE: Department of Medical Biochemistry, University of Nigeria, Enugu, Nigeria  
 SOURCE: Analytical Biochemistry (2002), 300(2), 267-269  
 CODEN: ANBCA2; ISSN: 0003-2697  
 PUBLISHER: Academic Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 136:355376  
 IT 420112-07-8P  
 RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (enzymic synthesis of [5-14C]ribose from [6-14C]glucose)  
 RN 420112-07-8 CAPLUS  
 CN D-Ribofuranose-5-14C, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.





REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:14202 CAPLUS  
 DOCUMENT NUMBER: 136:213361  
 TITLE: Biosynthesis of 1-deoxy-1-imino-D-erythrose 4-phosphate: a defining metabolite in the aminoshikimate pathway  
 AUTHOR(S): Guo, Jiantao; Frost, J. W.  
 CORPORATE SOURCE: Department of Chemistry, Michigan State University, East Lansing, MI, 48824, USA  
 SOURCE: Journal of the American Chemical Society (2002), 124(4), 528-529  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 136:213361

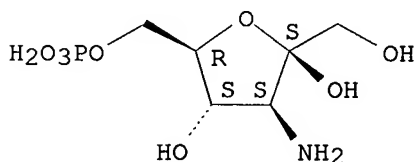
IT **402856-01-3P**

RL: BCP (Biochemical process); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)  
 (biosynthesis of 1-deoxy-1-imino-D-erythrose 4-phosphate and defining metabolite in the aminoshikimate pathway)

RN 402856-01-3 CAPLUS

CN  $\beta$ -D-Fructofuranose, 3-amino-3-deoxy-, 6-(dihydrogen phosphate) (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.



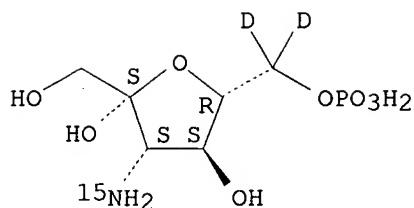
IT **402856-15-9P**

RL: BCP (Biochemical process); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)  
 (labeling 3-amino-3-deoxy-D-fructose 6-phosphate)

RN 402856-15-9 CAPLUS

CN  $\beta$ -D-Fructofuranose-6,6-C-d2, 3-(amino-15N)-3-deoxy-, 6-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:763228 CAPLUS

DOCUMENT NUMBER: 135:314428

TITLE: Positive selection of transformants by auxotroph complementation with enzymatic precursor conversion

INVENTOR(S): Silva, Christopher J.

PATENT ASSIGNEE(S): Cubist Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077366	A1	20011018	WO 2001-US11567	20010410 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2000-195911P P 20000410

IT **92481-94-2**, 5,6,7,8-Tetrahydromethanopterin **367527-39-7**

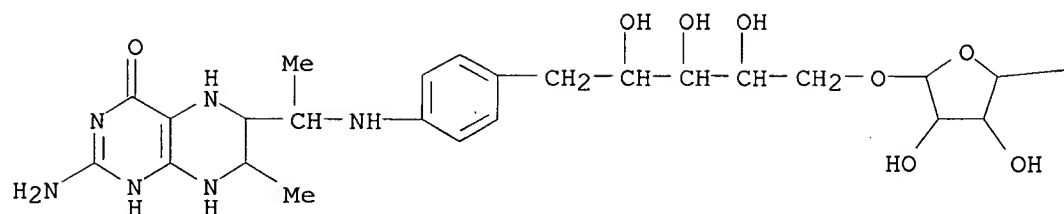
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)

(pos. selection of transformants by auxotroph complementation with enzymic precursor conversion)

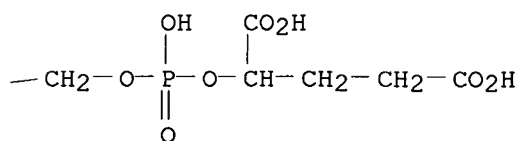
RN 92481-94-2 CAPLUS

CN D-Ribitol, 1-[4-[[[(1R)-1-[(6S,7S)-2-amino-1,4,5,6,7,8-hexahydro-7-methyl-4-oxo-6-pteridinyl]ethyl]amino]phenyl]-1-deoxy-5-O-[5-O-[[[(1S)-1,3-dicarboxypropoxy]hydroxyphosphinyl]-α-D-ribofuranosyl]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

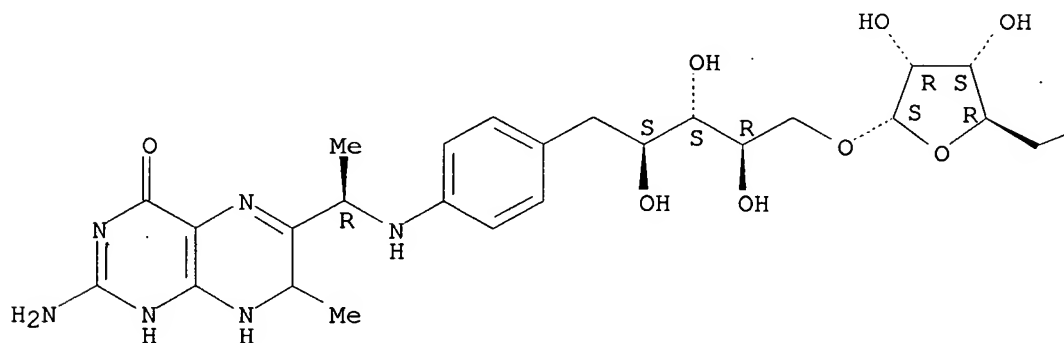


RN 367527-39-7 CAPLUS

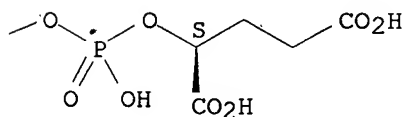
CN D-Ribitol, 1-[4-[(1R)-[1-(2-amino-1,4,7,8-tetrahydro-7-methyl-4-oxo-6-pteridinyloxy)ethyl]amino]phenyl]-1-deoxy-5-O-[5-O-[(1S)-1,3-dicarboxypropoxy]hydroxyphosphinyl]- $\alpha$ -D-ribofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:598006 CAPLUS

DOCUMENT NUMBER: 135:180926

TITLE: Process for selectively producing 1-phosphorylated sugar derivative anomer and process for producing nucleoside

INVENTOR(S): Komatsu, Hironori; Awano, Hirokazu; Fukazawa, Nobuyuki; Ito, Kiyoshi; Ikeda, Ichirou; Araki, Tadashi; Nakamura, Takeshi; Asano, Tamotsu; Fujiwara, Junya; Ando, Tomoyuki; Tsuchiya, Katsutoshi; Maruyama, Kyoko; Umetani, Hideki; Yamauchi, Takahiro; Miyake, Hitoki

PATENT ASSIGNEE(S): Mitsui Chemicals, Inc., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001058920	A2	20010816	WO 2001-JP968	20010213 <--
WO 2001058920	A3	20011108		
W: BR, CA, CN, IN, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
CA 2366513	A1	20010816	CA 2001-2366513	20010213 <--
EP 1178051	A2	20020206	EP 2001-904386	20010213 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002205996	A	20020723	JP 2001-35749	20010213 <--
BR 2001004461	A	20020806	BR 2001-4461	20010213 <--
US 2002193314	A1	20021219	US 2002-958305	20020507 <--
US 7038039	B2	20060502		
US 2006094869	A1	20060504	US 2005-287212	20051128
PRIORITY APPLN. INFO.:			JP 2000-33212	A 20000210
			JP 2000-67333	A 20000310
			JP 2000-341960	A 20001109
			WO 2001-JP968	W 20010213
			US 2002-958305	A3 20020507

OTHER SOURCE(S): CASREACT 135:180926; MARPAT 135:180926

IT **354823-76-0P**

RL: SPN (Synthetic preparation); PREP (Preparation)

(selective preparation of 1-phosphorylated sugar derivative anomer by phosphorylation, isomerization, and fractional crystallization and process for

producing nucleoside by glycosylation using nucleoside phosphorylase)

RN 354823-76-0 CAPLUS

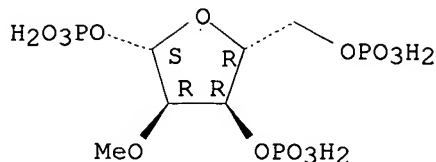
CN  $\beta$ -D-Ribofuranose, 2-O-methyl-, tris(dihydrogen phosphate), compd. with cyclohexanamine (1:2) (9CI) (CA INDEX NAME).

CM 1

CRN 354823-75-9

CMF C6 H15 O14 P3

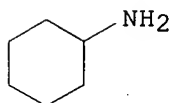
Absolute stereochemistry.



CM 2

CRN 108-91-8

CMF C6 H13 N



L6 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:480629 CAPLUS

DOCUMENT NUMBER: 135:87156

TITLE: Antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and the Warburg effect

INVENTOR(S): Bucala, Richard J.; Chesney, Jason A.; Mitchell, Robert A.

PATENT ASSIGNEE(S): The Picower Institute for Medical Research, USA

SOURCE: U.S., 29 pp., Cont.-in-part of U.S. Ser. No. 961,578.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6255046	B1	20010703	US 1998-183846	19981030 <--
US 6413939	B1	20020702	US 1997-961578	19971031 <--
US 6596851	B1	20030722	US 2000-670216	20000925 <--
AU 2003204075	A1	20030612	AU 2003-204075	20030507 <--
US 2003228568	A1	20031211	US 2003-449512	20030602 <--
PRIORITY APPLN. INFO.:			US 1997-961578	A2 19971031
			AU 1999-13707	A3 19981030
			US 1998-183846	A3 19981030
			US 2000-670216	A1 20000925

IT **79082-92-1**, Fructose 2,6-bisphosphate

RL: ANT (Analyte); FMU (Formation, unclassified); ANST (Analytical study);

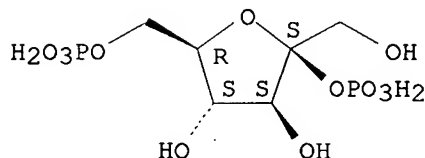
FORM (Formation, nonpreparative)

(antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

RN 79082-92-1 CAPLUS

CN  $\beta$ -D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:260079 CAPLUS

DOCUMENT NUMBER: 135:89068

TITLE: A Reexamination of the Substrate Utilization of  
2-Thioorotidine-5'-monophosphate by Yeast  
Orotidine-5'-Monophosphate Decarboxylase

AUTHOR(S): Smiley, Jeffrey A.; Hay, Kelly M.; Levison, Bruce S.  
CORPORATE SOURCE: Department of Chemistry, Youngstown State University,  
Youngstown, OH, 44555, USA

SOURCE: Bioorganic Chemistry (2001), 29(2), 96-106  
CODEN: BOCMBM; ISSN: 0045-2068

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

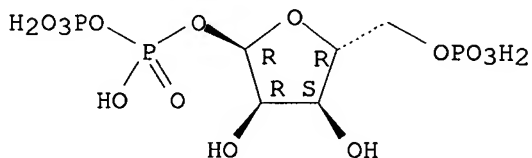
OTHER SOURCE(S): CASREACT 135:89068

IT 7540-64-9, 5-Phosphorylribose-1-pyrophosphate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(improved synthesis of 2-thioorotidine-5'-monophosphate)

RN 7540-64-9 CAPLUS

CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen  
diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:48271 CAPLUS

DOCUMENT NUMBER: 134:262712

TITLE: O-ADP-ribosylation in the NAD/NADase system:  
2-alkanols as efficient substrates

AUTHOR(S): Tono-Oka, Shuichi; Hatakeyama, Masanori  
CORPORATE SOURCE: Division of Molecular Oncology, Institute for Genetic  
Medicine, Hokkaido University, Sapporo, 060-0815,  
Japan

SOURCE: Chemical & Pharmaceutical Bulletin (2001),  
49(1), 123-125

CODEN: CPBTAL; ISSN: 0009-2363  
PUBLISHER: Pharmaceutical Society of Japan  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 134:262712

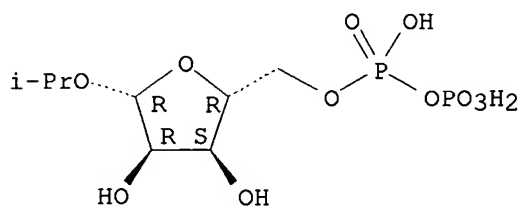
IT 331830-75-2P 331830-77-4P 331830-79-6P  
331830-81-0P 331830-83-2P 331830-85-4P  
331830-87-6P 331830-88-7P

RL: **BPN (Biosynthetic preparation)**; BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)  
(alkanol specificity in ADP-ribosylation by NAD/NADase system)

RN 331830-75-2 CAPLUS

CN  $\beta$ -D-Ribofuranoside, 1-methylethyl, 5-(trihydrogen diphosphate) (9CI)  
(CA INDEX NAME)

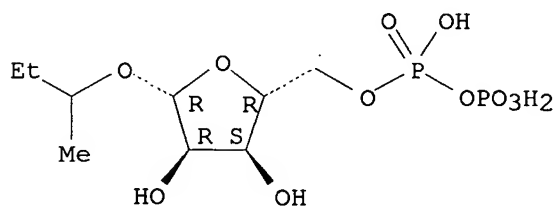
Absolute stereochemistry.



RN 331830-77-4 CAPLUS

CN  $\beta$ -D-Ribofuranoside, 1-methylpropyl, 5-(trihydrogen diphosphate) (9CI)  
(CA INDEX NAME)

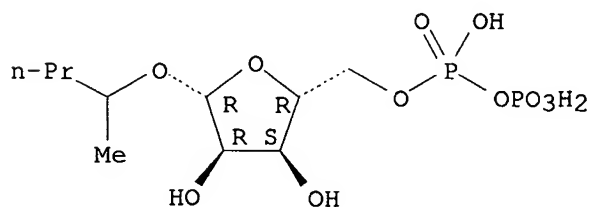
Absolute stereochemistry.



RN 331830-79-6 CAPLUS

CN  $\beta$ -D-Ribofuranoside, 1-methylbutyl, 5-(trihydrogen diphosphate) (9CI)  
(CA INDEX NAME)

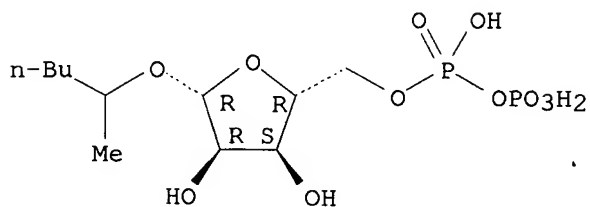
Absolute stereochemistry.



RN 331830-81-0 CAPLUS

CN  $\beta$ -D-Ribofuranoside, 1-methylpentyl, 5-(trihydrogen diphosphate) (9CI)  
(CA INDEX NAME)

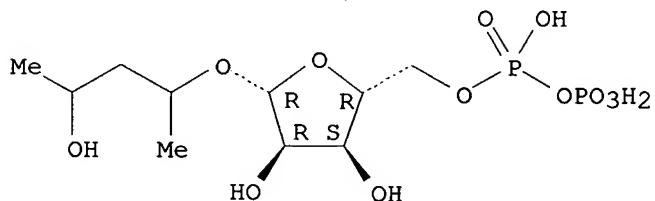
Absolute stereochemistry.



RN 331830-83-2 CAPLUS

CN  $\beta$ -D-Ribofuranoside, 3-hydroxy-1-methylbutyl, 5-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

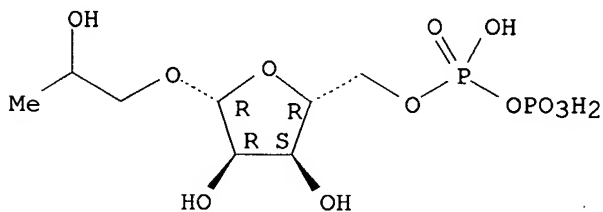
Absolute stereochemistry.



RN 331830-85-4 CAPLUS

CN  $\beta$ -D-Ribofuranoside, 2-hydroxypropyl, 5-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

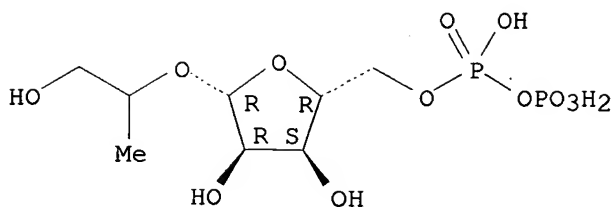


RN 331830-87-6 CAPLUS

CN  $\beta$ -D-Ribofuranoside, 2-hydroxy-1-methylethyl, 5-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

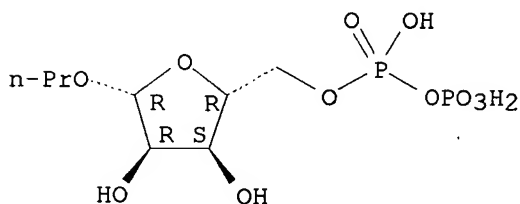




RN 331830-88-7 CAPLUS

CN  $\beta$ -D-Ribofuranoside, propyl, 5-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:30117 CAPLUS

DOCUMENT NUMBER: 134:204897

TITLE: Relationship between glycolysis and exopolysaccharide biosynthesis in *Lactococcus lactis*

AUTHOR(S): Ramos, Ana; Boels, Ingeborg C.; De Vos, Willem M.; Santos, Helena

CORPORATE SOURCE: Instituto de Tecnologia Quimica e Biologica/Universidade Nova de Lisboa and Instituto de Biologia Experimental e Tecnologica, Oeiras, 2780-156, Port.

SOURCE: Applied and Environmental Microbiology (2001), 67(1), 33-41

CODEN: AEMIDF; ISSN: 0099-2240

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 7540-64-9, 5-Phosphorylribose 1-pyrophosphate

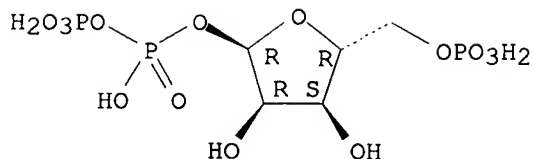
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)

(relationship between glycolysis and exopolysaccharide biosynthesis in *Lactococcus lactis*)

RN 7540-64-9 CAPLUS

CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

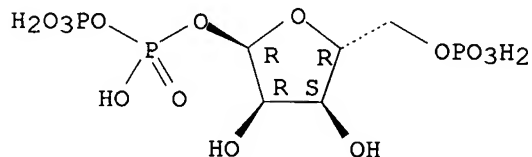
Absolute stereochemistry.



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2000:445799 CAPLUS  
 DOCUMENT NUMBER: 133:189782  
 TITLE: The two *Toxoplasma gondii* hypoxanthine-guanine phosphoribosyltransferase isozymes form heterotetramers  
 AUTHOR(S): White, E. Lucile; Ross, Larry J.; Davis, Richard L.; Ginkel, Sabrina Zywno-Van; Vasanthakumar, Geetha; Borhani, David W.  
 CORPORATE SOURCE: Drug Discovery Division, Southern Research Institute, Birmingham, AL, 35205, USA  
 SOURCE: Journal of Biological Chemistry (2000), 275(25), 19218-19223  
 CODEN: JBCHA3; ISSN: 0021-9258  
 PUBLISHER: American Society for Biochemistry and Molecular Biology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT **7540-64-9**, PRPP  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (The two *Toxoplasma gondii* hypoxanthine-guanine phosphoribosyltransferase isoenzymes form heterotetramers)  
 RN 7540-64-9 CAPLUS  
 CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2000:325358 CAPLUS  
 DOCUMENT NUMBER: 133:101361  
 TITLE: N- and C-termini modulate the effects of pH and phosphorylation on hepatic 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase  
 AUTHOR(S): Kurland, Irwin J.; Chapman, Brett; El-Maghrabi, M. Raafat

CORPORATE SOURCE: Department of Internal Medicine, Division of  
Endocrinology and Metabolism, Diabetes and Metabolism  
Signaling Laboratory, Molecular Biology Institute,  
UCLA, University of California at Los Angeles (UCLA)  
School of Medicine, Los Angeles, CA, 90095, USA

SOURCE: Biochemical Journal (2000), 347(2), 459-467  
CODEN: BIJOAK; ISSN: 0264-6021

PUBLISHER: Portland Press Ltd.

DOCUMENT TYPE: Journal

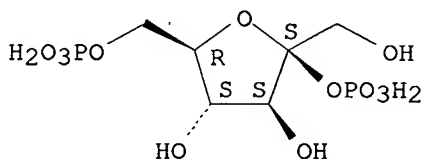
LANGUAGE: English

IT **79082-92-1**, Fructose-2,6-bisphosphate  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(N- and C-termini modulate the effects of pH and phosphorylation on  
hepatic 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase)

RN 79082-92-1 CAPLUS

CN  $\beta$ -D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:225671 CAPLUS

DOCUMENT NUMBER: 133:17738

TITLE: Structures of ADP-ribosylated rifampicin and its  
metabolite: intermediates of rifampicin-ribosylation  
by Mycobacterium smegmatis DSM43756

AUTHOR(S): Morisaki, Naoko; Hashimoto, Yuichi; Furihata, Kazuo;  
Imai, Tamae; Watanabe, Kayo; Mikami, Yuzuru; Yazawa,  
Katsukiyo; Ando, Akikazu; Nagata, Yoshiho; Dabbs, Eric  
R.

CORPORATE SOURCE: Institute of Molecular and Cellular Biosciences, The  
University of Tokyo, Tokyo, 113-0032, Japan

SOURCE: Journal of Antibiotics (2000), 53(3),  
269-275  
CODEN: JANTAJ; ISSN: 0021-8820

PUBLISHER: Japan Antibiotics Research Association

DOCUMENT TYPE: Journal

LANGUAGE: English

IT **221910-89-0P 263706-84-9P**  
RL: **BPN (Biosynthetic preparation)**; PRP (Properties); BIOL  
(Biological study); PREP (Preparation)  
(structures of ADP-ribosylated rifampicin and its metabolite and  
intermediates of rifampicin-ribosylation by Mycobacterium smegmatis  
DSM43756)

RN 221910-89-0 CAPLUS

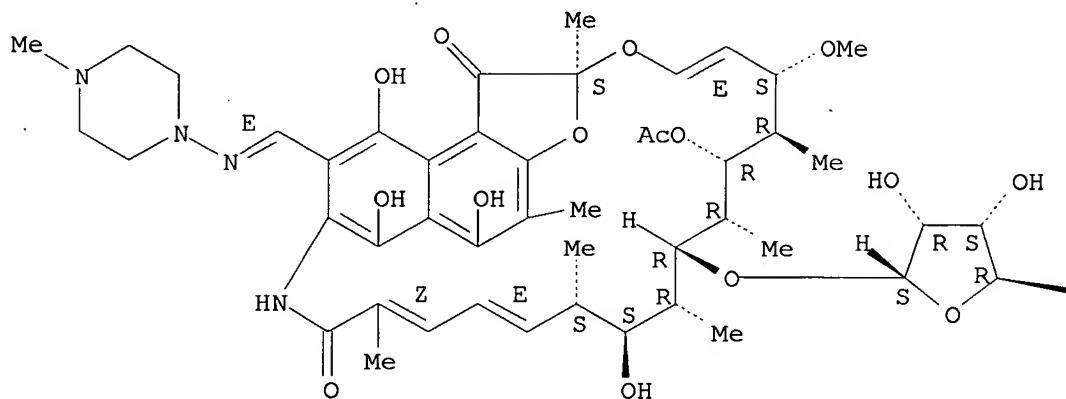
CN Rifamycin, 3-[(E)-[(4-methyl-1-piperazinyl)imino]methyl]-23-O- $\alpha$ -D-  
ribofuranosyl-, 5' $\rightarrow$ P'-ester with adenosine 5'-(trihydrogen

diphosphate) (9CI) (CA INDEX NAME)

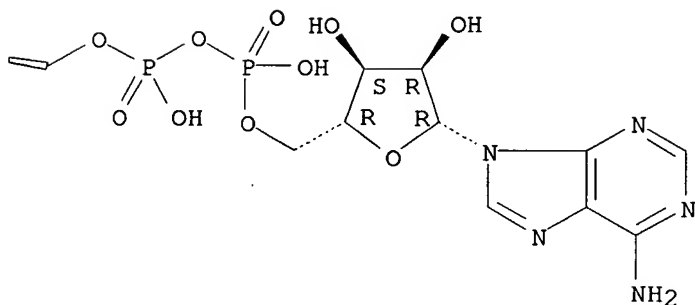
Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B

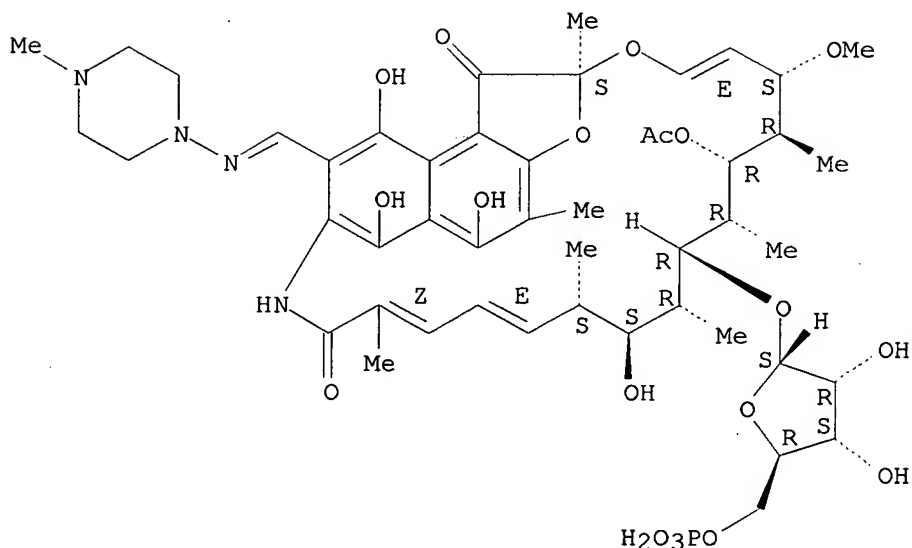


RN 263706-84-9 CAPLUS

CN Rifamycin, 3-[[[4-methyl-1-piperazinyl]imino]methyl]-23-O-(5-O-phosphono-  
α-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.



IT **273202-15-6P**

RL: **BPN (Biosynthetic preparation)**; PRP (Properties); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(structures of ADP-ribosylated rifampicin and its metabolite and intermediates of rifampicin-ribosylation by *Mycobacterium smegmatis* DSM43756)

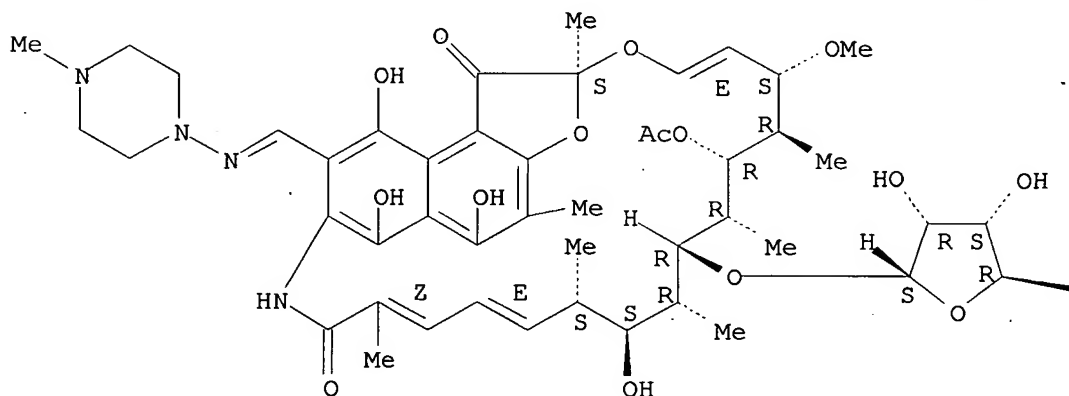
RN 273202-15-6 CAPLUS

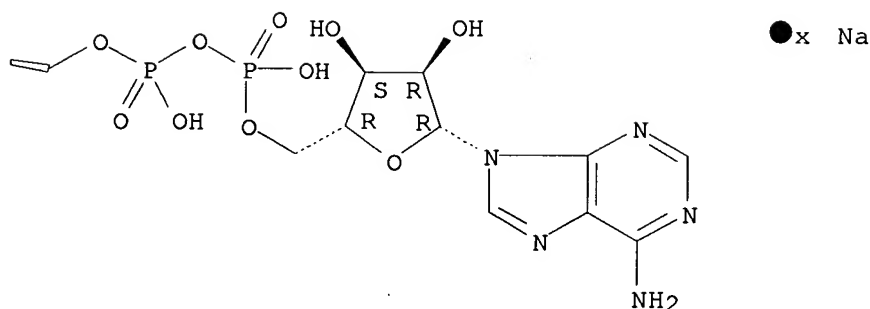
CN Rifamycin, 3-[[[4-methyl-1-piperazinyl]imino]methyl]-23-O-α-D-ribofuranosyl-, 5'-P'-ester with adenosine 5'-(trihydrogen diphosphate), sodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A





REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:222843 CAPLUS

DOCUMENT NUMBER: 133:27981

TITLE: Exploring substrate binding and discrimination in fructose 1,6-bisphosphate and tagatose 1,6-bisphosphate aldolases

AUTHOR(S): Zgiby, Shaza M.; Thomson, Graeme J.; Qamar, Seema; Berry, Alan

CORPORATE SOURCE: School of Biochemistry and Molecular Biology, University of Leeds, Leeds, LS2 9JT, UK

SOURCE: European Journal of Biochemistry (2000), 267(6), 1858-1869

CODEN: EJBICAI; ISSN: 0014-2956

PUBLISHER: Blackwell Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 148219-45-8

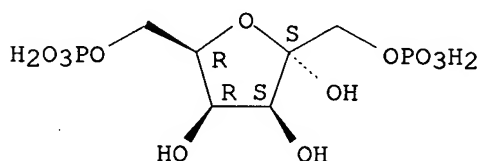
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(exploring substrate binding and discrimination in fructose 1,6-bisphosphate and tagatose 1,6-bisphosphate aldolases)

RN 148219-45-8 CAPLUS

CN  $\alpha$ -D-Tagatofuranose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:53860 CAPLUS

DOCUMENT NUMBER: 132:104686

TITLE: Gene encoding sucrose phosphate synthase from Synechocystis with general nucleoside diphosphoglucose donor specificity

INVENTOR(S): Furbank, Robert; Lunn, John

PATENT ASSIGNEE(S): Commonwealth Scientific Industrial and Research Organisation, Australia

SOURCE: PCT Int. Appl., 99 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000003006	A1	20000120	WO 1999-AU557	19990708 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9947624	A	20000201	AU 1999-47624	19990708 <--
PRIORITY APPLN. INFO.:			AU 1998-4578	A 19980708
			WO 1999-AU557	W 19990708

IT **4549-10-4P**, Sucrose 6'-phosphate

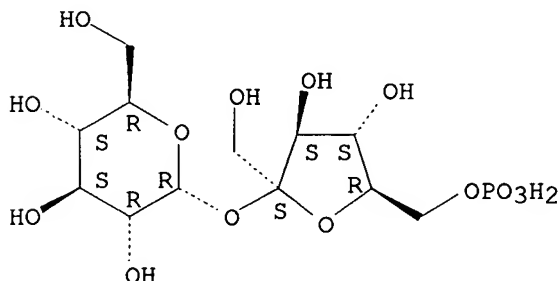
RL: BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)

(gene encoding sucrose phosphate synthase from Synechocystis with general nucleoside diphosphoglucose donor specificity)

RN 4549-10-4 CAPLUS

CN  $\alpha$ -D-Glucopyranoside, 6-O-phosphono- $\beta$ -D-fructofuranosyl (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



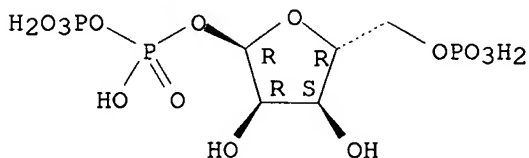
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2000:12727 CAPLUS  
DOCUMENT NUMBER: 132:77663  
TITLE: Method for producing metabolites biologically synthesized via phosphoribosyl pyrophosphate  
INVENTOR(S): Ikeda, Masato; Okamoto, Kazuyuki; Nakano, Tetsuo; Kamada, Nozomu  
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan  
SOURCE: Eur. Pat. Appl., 12 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 969096	A1	20000105	EP 1999-112854	19990702 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000014396	A	20000118	JP 1998-187992	19980703 <--
CA 2276816	A1	20000103	CA 1999-2276816	19990630 <--
US 6258554	B1	20010710	US 1999-347808	19990722 <--
PRIORITY APPLN. INFO.:			JP 1998-187992	A 19980703

IT 7540-64-9, Phosphoribosyl pyrophosphate  
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)  
(producing metabolites biol. synthesized via phosphoribosyl pyrophosphate)  
RN 7540-64-9 CAPLUS  
CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1999:819500 CAPLUS  
DOCUMENT NUMBER: 132:74521  
TITLE: Alteration of plant metabolism using modified Giardia lamblia pyrophosphate-dependent phosphofructokinase (PFP)  
INVENTOR(S): Blakeley, Stephen; Dennis, David T.; King, Steven

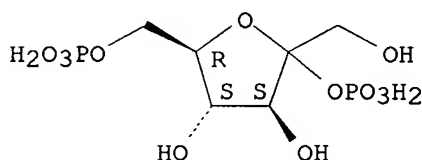


PATENT ASSIGNEE(S): Performance Plants, Inc., Can.  
 SOURCE: PCT Int. Appl., 55 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9967392	A2	19991229	WO 1999-CA570	19990618 <--
WO 9967392	A3	20000316		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SE, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 9942548 A 20000110 AU 1999-42548 19990618 <-- PRIORITY APPLN. INFO.: US 1998-89927P P 19980619 WO 1999-CA570 W 19990618				

IT **77164-51-3**, Fructose-2,6-bisphosphate  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (modified PFP which is insensitive to; alteration of plant metabolism using  
 modified Giardia lamblia pyrophosphate-dependent phosphofructokinase  
 (PFP))  
 RN 77164-51-3 CAPLUS  
 CN D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

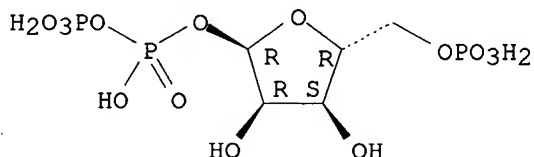
Absolute stereochemistry.



L6 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1999:510801 CAPLUS  
 DOCUMENT NUMBER: 131:268873  
 TITLE: Tryptophan Fluorescence Monitors Multiple  
 Conformational Changes Required for Glutamine  
 Phosphoribosylpyrophosphate Amidotransferase  
 Interdomain Signaling and Catalysis  
 AUTHOR(S): Chen, Sihong; Burgner, John W.; Krahn, Joseph M.;  
 Smith, Janet L.; Zalkin, Howard  
 CORPORATE SOURCE: Departments of Biochemistry and Biological Sciences,  
 Purdue University, West Lafayette, IN, 47907, USA  
 SOURCE: Biochemistry (1999), 38(36), 11659-11669  
 CODEN: BICHAW; ISSN: 0006-2960  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal

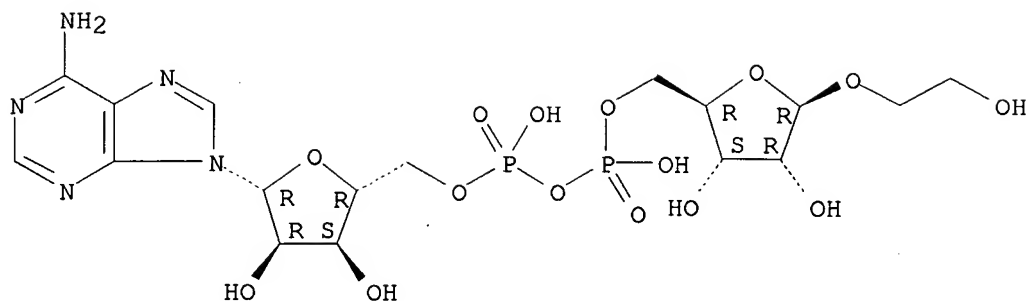
LANGUAGE: English  
 IT **7540-64-9**, Phosphoribosylpyrophosphate  
 RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)  
 (tryptophan fluorescence monitors multiple conformational changes required for glutamine phosphoribosylpyrophosphate amidotransferase interdomain signaling and catalysis)  
 RN 7540-64-9 CAPLUS  
 CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1999:137901 CAPLUS  
 DOCUMENT NUMBER: 130:223531  
 TITLE: Terminal diols as efficient substrates for transglycosylational activity of NAD glycohydrolase  
 AUTHOR(S): Tono-oka, Shuichi; Azuma, Ichiro  
 CORPORATE SOURCE: Section of Chemistry, Institute of Immunological Science, Hokkaido University, Sapporo, 060-0815, Japan  
 SOURCE: Nucleosides & Nucleotides (**1999**), 18(1), 39-49  
 CODEN: NUNUD5; ISSN: 0732-8311  
 PUBLISHER: Marcel Dekker, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 130:223531  
 IT **221167-43-7P** **221167-45-9P** **221167-48-2P**  
**221167-51-7P** **221167-53-9P** **221167-55-1P**  
**221167-58-4P** **221167-61-9P**  
 RL: **BPN (Biosynthetic preparation)**; BIOL (Biological study);  
 PREP (Preparation)  
 (terminal diols as efficient substrates for transglycosidational activity of NAD glycohydrolase)  
 RN 221167-43-7 CAPLUS  
 CN Adenosine 5'-(trihydrogen diphosphate), P' $\rightarrow$ 5-ester with 2-hydroxyethyl  $\beta$ -D-ribofuranoside (9CI) (CA INDEX NAME)

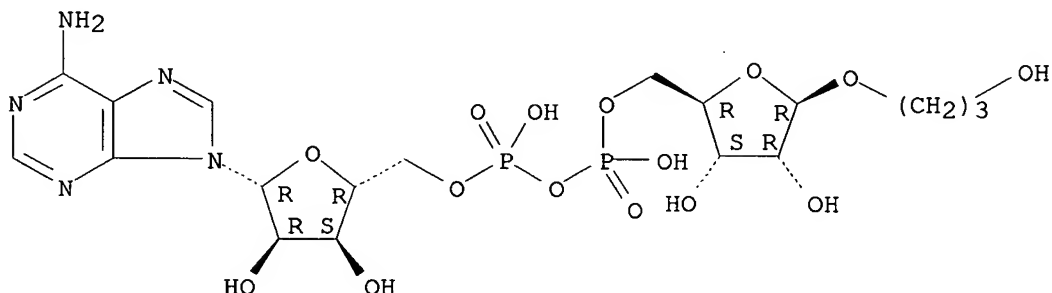
Absolute stereochemistry.



RN 221167-45-9 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with  
3-hydroxypropyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

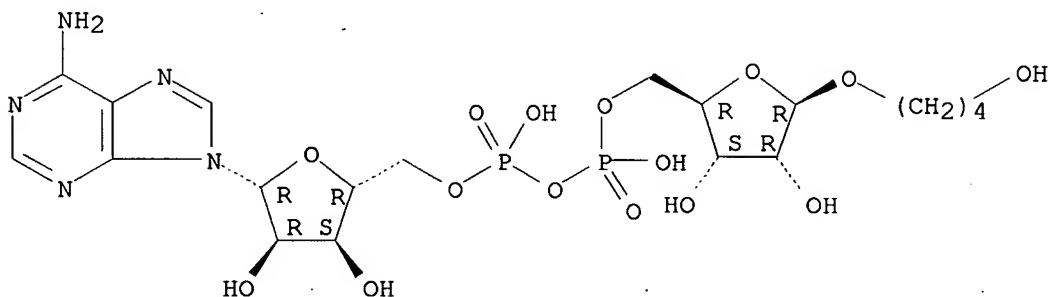
Absolute stereochemistry.



RN 221167-48-2 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with  
4-hydroxybutyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

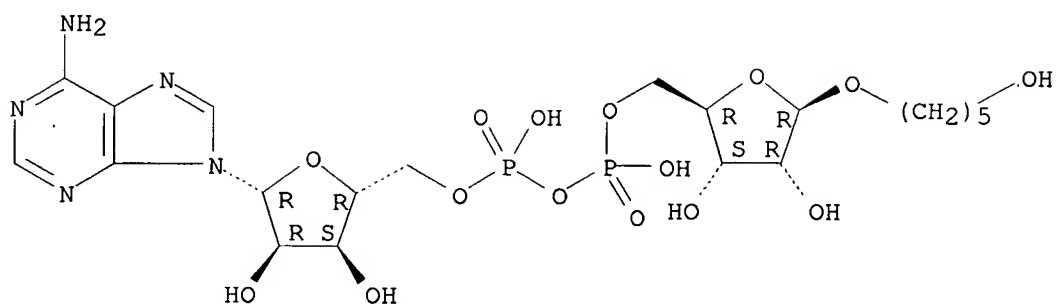
Absolute stereochemistry.



RN 221167-51-7 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with  
5-hydroxypentyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

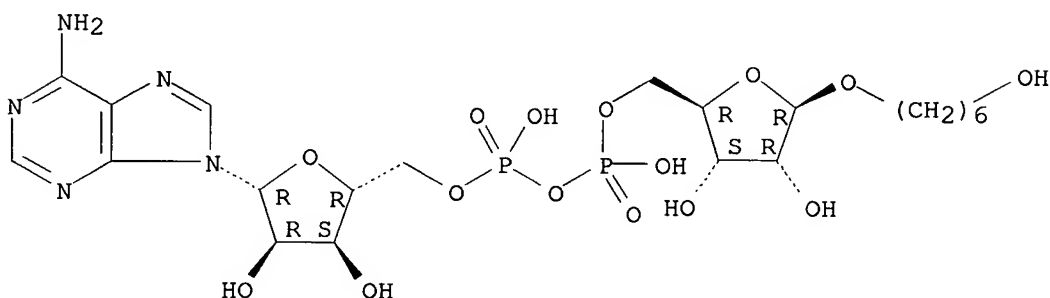
Absolute stereochemistry.



RN 221167-53-9 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with  
6-hydroxyhexyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

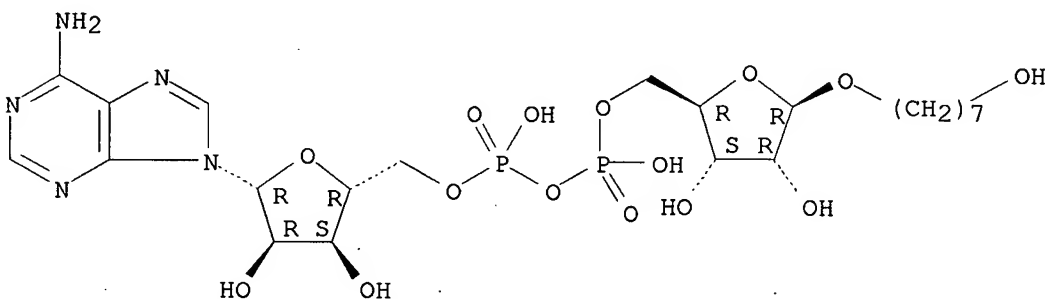
Absolute stereochemistry.



RN 221167-55-1 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with  
7-hydroxyheptyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

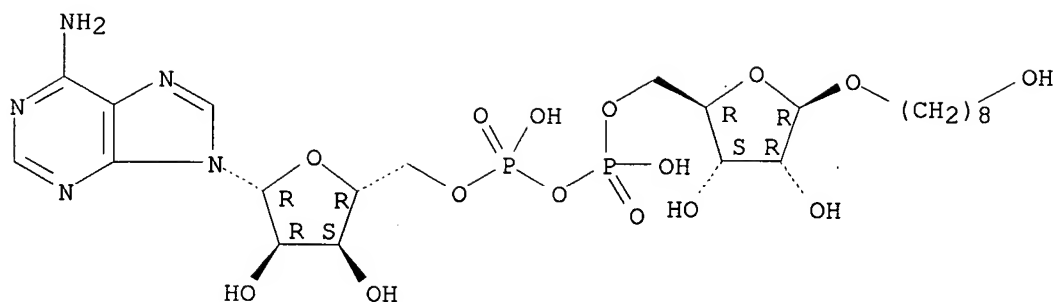
Absolute stereochemistry.



RN 221167-58-4 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with  
8-hydroxyoctyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

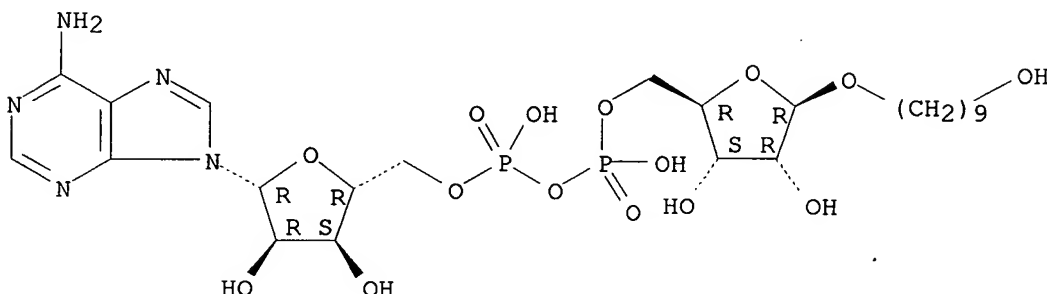
Absolute stereochemistry.



RN 221167-61-9 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with  
9-hydroxynonyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:99561 CAPLUS

DOCUMENT NUMBER: 130:264678

TITLE: ADP-ribosylation as an intermediate step in  
inactivation of rifampin by a mycobacterial gene

AUTHOR(S): Quan, Selwyn; Imai, Tamae; Mikami, Yuzuru; Yazawa,  
Katsukiyo; Dabbs, Eric R.; Morisaki, Naoko; Iwasaki,  
Shigeo; Hashimoto, Yuichi; Furihata, Kazuo

CORPORATE SOURCE: Research Center for Pathogenic Fungi and Microbial  
Toxicoses, Chiba University, Chiba, 260-8673, Japan

SOURCE: Antimicrobial Agents and Chemotherapy (1999  
, 43(1), 181-184

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 221910-89-0

RL: BSU (Biological study, unclassified); MFM (Metabolic formation); PRP  
(Properties); BIOL (Biological study); FORM (Formation, nonpreparative)  
(ADP-ribosylation as an intermediate step in inactivation of rifampin  
by a mycobacterial gene)

RN 221910-89-0 CAPLUS

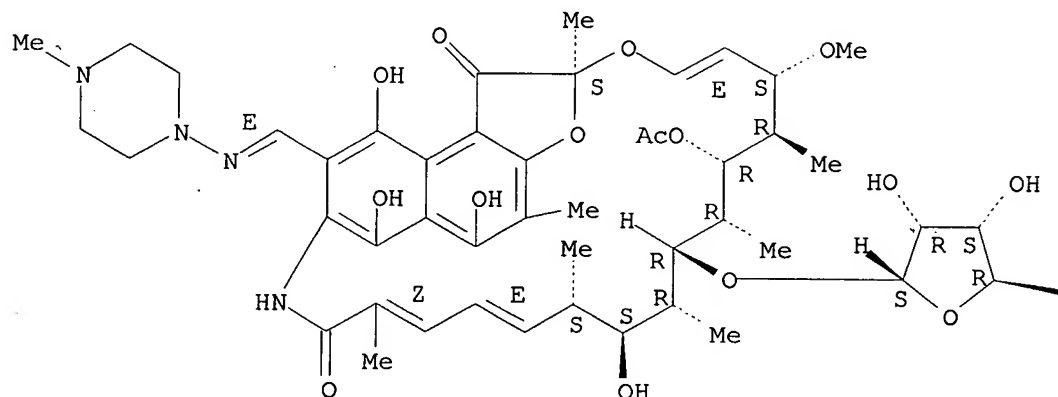
CN Rifamycin, 3-[(E)-[(4-methyl-1-piperazinyl)imino]methyl]-23-O-α-D-

ribofuranosyl-, 5'→P'-ester with adenosine 5'-(trihydrogen  
diphosphate) (9CI) (CA INDEX NAME)

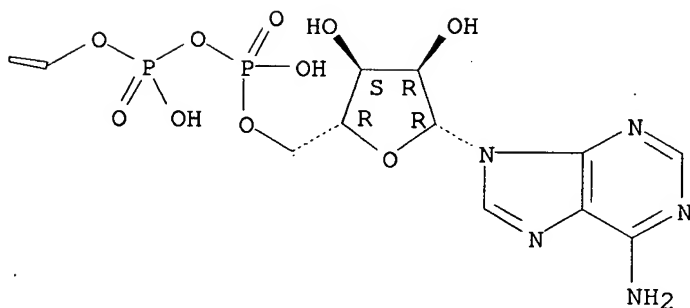
Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

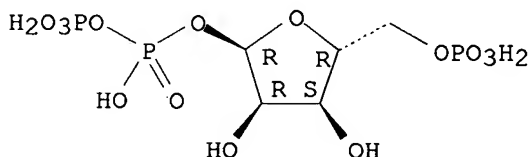
ACCESSION NUMBER: 1999:37429 CAPLUS

DOCUMENT NUMBER: 130:219774

TITLE: Cloning, overproduction, and purification of native  
and mutant recombinant yeast orotate  
phosphoribosyltransferase and the demonstration from  
magnetization inversion transfer that a proposed  
oxocarboxonium intermediate does not have a kinetic  
lifetime

AUTHOR(S): Witte, John F.; Tsou, Raymond; McClard, Ronald W.  
 CORPORATE SOURCE: Arthur F. Scott Laboratory of Chemistry, Reed College,  
 Portland, OR, 97202-8199, USA  
 SOURCE: Archives of Biochemistry and Biophysics (1999  
 ), 361(1), 106-112  
 CODEN: ABBIA4; ISSN: 0003-9861  
 PUBLISHER: Academic Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 7540-64-9, 5-Phosphorylribose 1- $\alpha$ -diphosphate  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (magnetization inversion transfer studies on orotate  
 phosphoribosyltransferase show that a proposed oxocarbo-  
 cation intermediate does not have a kinetic lifetime)  
 RN 7540-64-9 CAPLUS  
 CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen  
 diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

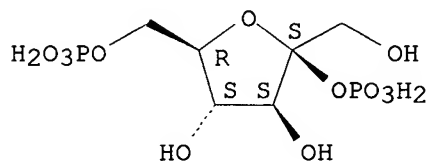
L6 ANSWER 28 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1998:786200 CAPLUS  
 DOCUMENT NUMBER: 130:86154  
 TITLE: Purification of fructose 2,6-bisphosphate by using  
 monovalent alkali metal salt solutions as eluting  
 solutions  
 INVENTOR(S): Fukushima, Yasumasa; Hayashi, Mayumi; Nakashima,  
 Hiroshi  
 PATENT ASSIGNEE(S): Unitika Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 10324693	A	19981208	JP 1997-134192	19970523 <--
PRIORITY APPLN. INFO.:			JP 1997-134192	19970523

IT 79082-92-1P, Fructose 2,6-bisphosphate  
 RL: BPN (Biosynthetic preparation); PUR (Purification or  
 recovery); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (purification of fructose bisphosphate by treating with anion-exchangers)  
 RN 79082-92-1 CAPLUS

CN  $\beta$ -D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 29 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:768102 CAPLUS

DOCUMENT NUMBER: 130:13262

TITLE: Purification of fructose 2,6-bisphosphate using aldolase

INVENTOR(S): Fukushima, Yasumasa; Hayashi, Mayumi; Nakajima, Hiroshi

PATENT ASSIGNEE(S): Unitika Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10316698	A	19981202	JP 1997-123721	19970514 <--
PRIORITY APPLN. INFO.:			JP 1997-123721	19970514

IT **79082-92-1P**, Fructose 2,6-bisphosphate

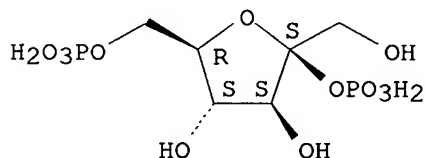
RL: **BPN (Biosynthetic preparation)**; PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)

(separation of fructose 2,6-bisphosphate from 1,6-bisphosphate isomer using enzymes)

RN 79082-92-1 CAPLUS

CN  $\beta$ -D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 30 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:763387 CAPLUS

DOCUMENT NUMBER: 130:92092

TITLE: Regulation of an Escherichia coli/mammalian chimeric carbamoyl-phosphate synthetase

AUTHOR(S): Sahay, Nisha; Guy, Hedeel I.; Liu, Xin; Evans, David R.

CORPORATE SOURCE: Department of Biochemistry and Molecular Biology,



Wayne State University School of Medicine, Detroit,  
MI, 48201, USA

SOURCE: Journal of Biological Chemistry (1998),  
273(47), 31195-31202  
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular  
Biology

DOCUMENT TYPE: Journal

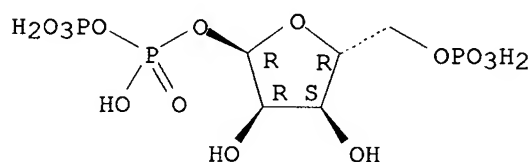
LANGUAGE: English

IT 7540-64-9  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(regulation of an Escherichia coli/mammalian chimeric  
carbamoyl-phosphate synthetase)

RN 7540-64-9 CAPLUS

CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen  
diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 80 THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:468435 CAPLUS

DOCUMENT NUMBER: 129:227412

TITLE: Mechanism for the Enzymic Formation of  
4-( $\beta$ -D-Ribofuranosyl)aminobenzene 5'-Phosphate  
during the Biosynthesis of Methanopterin

AUTHOR(S): Rasche, Madeline E.; White, Robert H.

CORPORATE SOURCE: Department of Biochemistry, Virginia Polytechnic  
Institute and State University, Blacksburg, VA,  
24061-0308, USA

SOURCE: Biochemistry (1998), 37(32), 11343-11351  
CODEN: BICHAW; ISSN: 0006-2960

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

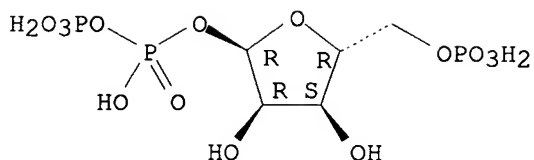
LANGUAGE: English

IT 7540-64-9, Prpp  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(mechanism for the enzymic formation of ribofuranosylaminobenzene  
phosphate during the biosynthesis of methanopterin)

RN 7540-64-9 CAPLUS

CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen  
diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



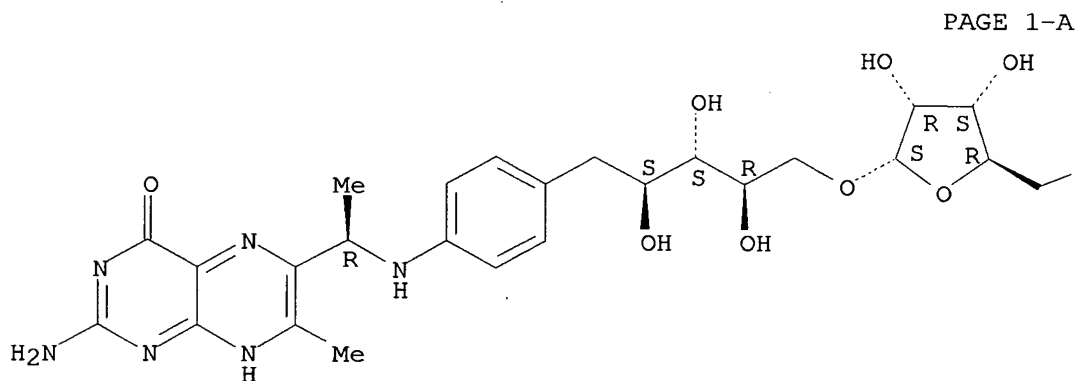
IT **79484-89-2**, Methanopterin

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(mechanism for the enzymic formation of ribofuranosylaminobenzene  
phosphate during the biosynthesis of methanopterin)

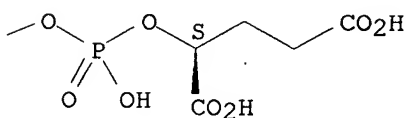
RN 79484-89-2 CAPLUS

CN D-Ribitol, 1-[4-[[[(1R)-1-(2-amino-1,4-dihydro-7-methyl-4-oxo-6-  
pteridiny]ethyl]amino]phenyl]-1-deoxy-5-O-[5-O-[[[(1S)-1,3-  
dicarboxypropoxy]hydroxyphosphinyl]-α-D-ribofuranosyl]- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.



PAGE 1-B



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 32 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:147674 CAPLUS.

DOCUMENT NUMBER: 128:291996

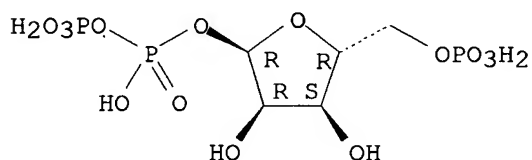
TITLE: Conversion of a Cosubstrate to an Inhibitor:  
Phosphorylation Mutants of Nicotinic Acid  
Phosphoribosyltransferase

AUTHOR(S): Rajavel, Mathumathi; Lalo, Dominique; Gross, Jeffrey  
W.; Grubmeyer, Charles

CORPORATE SOURCE: Fels Research Institute and Department of

Biochemistry, Temple University School of Medicine,  
Philadelphia, PA, 19140, USA  
SOURCE: Biochemistry (1998), 37(12), 4181-4188  
CODEN: BICHAW; ISSN: 0006-2960  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT **7540-64-9**, 5-Phosphoribosyl 1-pyrophosphate  
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP  
(Properties); BIOL (Biological study); PROC (Process)  
(preparation and kinetic properties of mutant nicotinic acid  
phosphoribosyltransferases (NAPRTase) lacking autophosphorylatable  
His-219)  
RN 7540-64-9 CAPLUS  
CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen  
diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 33 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:713625 CAPLUS

DOCUMENT NUMBER: 128:45125

TITLE: Cloning and characterization of the arginine-specific  
carbamoyl-phosphate synthetase from Bacillus  
stearothermophilus

AUTHOR(S): Yang, Hsiuchin; Park, Seung-Moon; Nolan, William G.;  
Lu, Chung-Dar; Abdelal, Ahmed T.

CORPORATE SOURCE: Department of Biology, Georgia State University,  
Atlanta, USA

SOURCE: European Journal of Biochemistry (1997),  
249(2), 443-449

CODEN: EJBCAI; ISSN: 0014-2956

PUBLISHER: Springer

DOCUMENT TYPE: Journal

LANGUAGE: English

IT **7540-64-9**

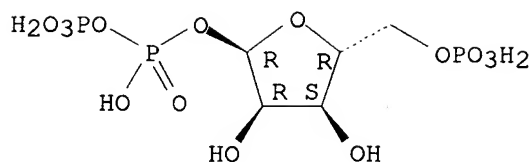
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BIOL (Biological study)

(allosteric properties of pyrimidine-specific carbamoylphosphate  
synthetase from Bacillus stearothermophilus)

RN 7540-64-9 CAPLUS

CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen  
diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:590662 CAPLUS

DOCUMENT NUMBER: 127:278399

TITLE: Enzymic alcoholyzes of NAD. A new type of ADP-ribosylation reaction catalyzed by NAD glycohydrolase

AUTHOR(S): Tonooka, Shuichi; Azuma, Ichiro

CORPORATE SOURCE: Institute Immunological Science, Hokkaido Univ., Sapporo, 060, Japan

SOURCE: Liebigs Annalen/Recueil (1997), (9), 1823-1826

CODEN: LIARFV

PUBLISHER: Wiley-VCH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 127:278399

IT 68521-69-7P 195964-79-5P 195964-80-8P

196512-36-4P 196512-49-9P 196512-59-1P

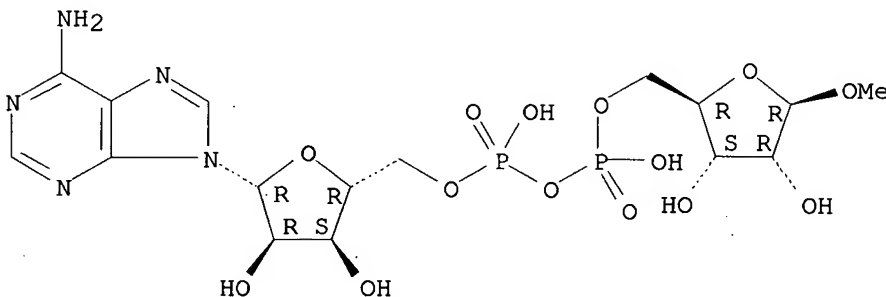
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(ADP-ribosylation catalyzed by NAD glycohydrolase)

RN 68521-69-7 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with methyl β-D-ribofuranoside (9CI) (CA INDEX NAME)

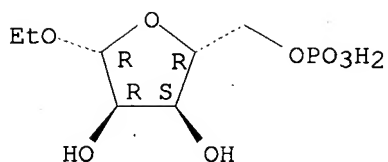
Absolute stereochemistry.



RN 195964-79-5 CAPLUS

CN β-D-Ribofuranoside, ethyl, 5-(dihydrogen phosphate) (CA INDEX NAME)

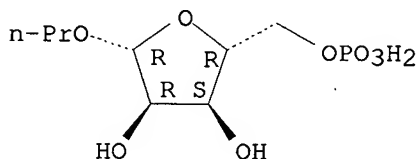
Absolute stereochemistry.



RN 195964-80-8 CAPLUS

CN  $\beta$ -D-Ribofuranoside, propyl, 5-(dihydrogen phosphate) (CA INDEX NAME)

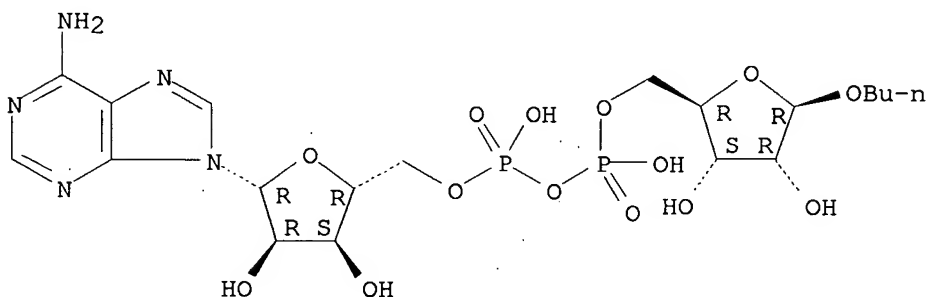
Absolute stereochemistry.



RN 196512-36-4 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P' $\rightarrow$ 5-ester with butyl  $\beta$ -D-ribofuranoside (9CI) (CA INDEX NAME)

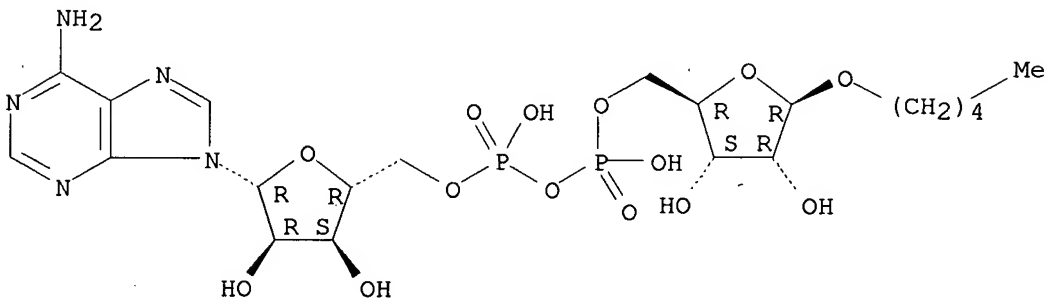
Absolute stereochemistry.



RN 196512-49-9 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P' $\rightarrow$ 5-ester with pentyl  $\beta$ -D-ribofuranoside (9CI) (CA INDEX NAME)

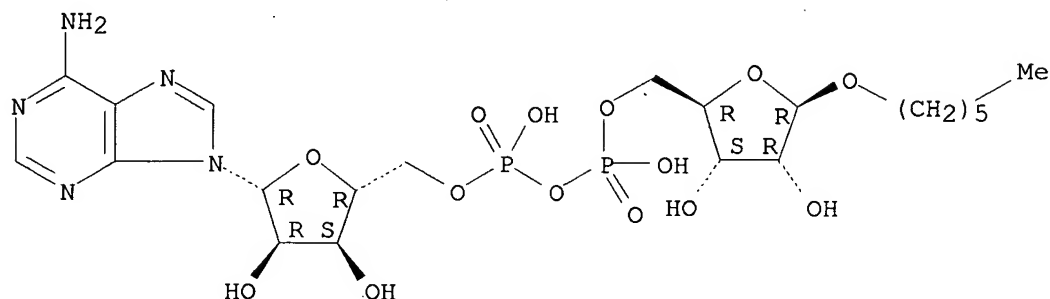
Absolute stereochemistry.



RN 196512-59-1 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with hexyl  
β-D-ribofuranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.



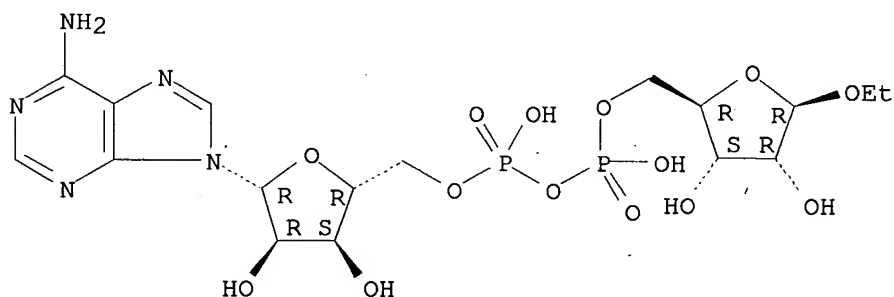
IT 196512-04-6P 196512-24-0P

RL: **BPN (Biosynthetic preparation)**; RCT (Reactant); BIOL  
(Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(ADP-ribosylation catalyzed by NAD glycohydrolase)

RN 196512-04-6 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with ethyl  
β-D-ribofuranoside (9CI) (CA INDEX NAME)

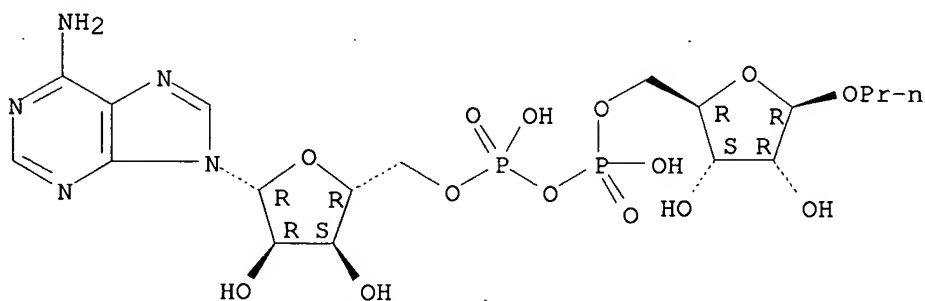
Absolute stereochemistry.



RN 196512-24-0 CAPLUS

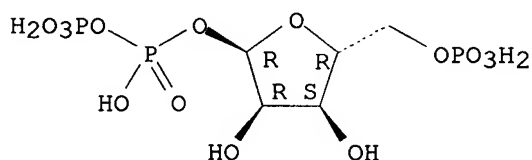
CN Adenosine 5'-(trihydrogen diphosphate), P'→5-ester with propyl  
β-D-ribofuranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 35 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1997:535739 CAPLUS  
 DOCUMENT NUMBER: 127:231171  
 TITLE: Trapping an activated conformation of mammalian carbamyl-phosphate synthetase  
 AUTHOR(S): Guy, Hedeel I.; Evans, David R.  
 CORPORATE SOURCE: Department of Biochemistry and Molecular Biology, Wayne State University School of Medicine, Detroit, MI, 48201, USA  
 SOURCE: Journal of Biological Chemistry (1997), 272(32), 19906-19912  
 CODEN: JBCHA3; ISSN: 0021-9258  
 PUBLISHER: American Society for Biochemistry and Molecular Biology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT **7540-64-9**, Phosphoribosyl pyrophosphate  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (activation of carbamyl phosphate synthetase by; trapping activated conformation of mammalian carbamyl-phosphate synthetase)  
 RN 7540-64-9 CAPLUS  
 CN  $\alpha$ -D-Ribofuranose, 5-(dihydrogen phosphate) 1-(trihydrogen diphosphate) (CA INDEX NAME)

Absolute stereochemistry.



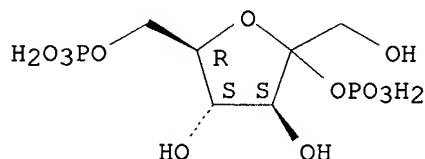
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 36 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1997:397175 CAPLUS  
 DOCUMENT NUMBER: 127:32950  
 TITLE: Fructose-2,6-bisphosphate manufacture with phosphofructokinase  
 INVENTOR(S): Yoshikawa, Genichi; Shimoide, Ayako; Nakajima, Hiroshi  
 PATENT ASSIGNEE(S): Unitika Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09107986	A	19970428	JP 1995-275459	19951024 <--
PRIORITY APPLN. INFO.:			JP 1995-275459	19951024
IT <b>77164-51-3P</b> , Fructose-2,6-bisphosphate				

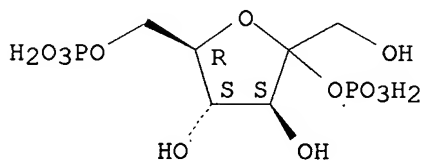
RL: **BPN (Biosynthetic preparation)**; BIOL (Biological study);  
PREP (Preparation)  
(fructose-2,6-bisphosphate manufacture with phosphofructokinase)  
RN 77164-51-3 CAPLUS  
CN D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 37 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1997:278900 CAPLUS  
DOCUMENT NUMBER: 126:305686  
TITLE: Steady-State Measurements on Fructose  
6-Phosphate/Fructose 1,6-Bisphosphate Interconversion  
Cycle  
AUTHOR(S): Hauri, David C.; Shen, Peidong; Arkin, Adam P.; Ross,  
John  
CORPORATE SOURCE: Department of Chemistry, Stanford University,  
Stanford, CA, 94305, USA  
SOURCE: Journal of Physical Chemistry B (1997),  
101(19), 3872-3876  
CODEN: JPCBFK; ISSN: 1089-5647  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT **77164-51-3P**, Fructose 2,6-bisphosphate  
RL: **BPN (Biosynthetic preparation)**; RCT (Reactant); BIOL  
(Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(steadystate measurements on fructose phosphate fructose bisphosphate  
interconversion cycle)  
RN 77164-51-3 CAPLUS  
CN D-Fructofuranose, 2,6-bis(dihydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 38 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1996:424885 CAPLUS  
DOCUMENT NUMBER: 125:67300  
TITLE: Dentifrices containing fructose diphosphate  
dimagnesium salt



INVENTOR(S): Manabe, Mika; Katayama, Tatsuo; Yamamoto, Hideki  
 PATENT ASSIGNEE(S): Unitika Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08081343	A	19960326	JP 1994-217202	19940912 <--
PRIORITY APPLN. INFO.:			JP 1994-217202	19940912

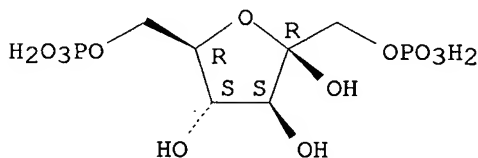
IT **175888-48-9P**

RL: **BPN (Biosynthetic preparation)**; BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (dentifrices containing fructose diphosphate dimagnesium salt for treatment of periodontal disease)

RN 175888-48-9 CAPLUS

CN  $\beta$ -D-Fructofuranose, 1,6-bis(dihydrogen phosphate), magnesium salt (1:2) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Mg

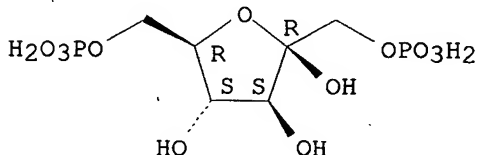
IT **34693-15-7P 94333-58-1P**

RL: **BPN (Biosynthetic preparation)**; RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
 (microbial manufacture of fructose diphosphate dimagnesium salt from glucose as dentifrice ingredient)

RN 34693-15-7 CAPLUS

CN  $\beta$ -D-Fructofuranose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

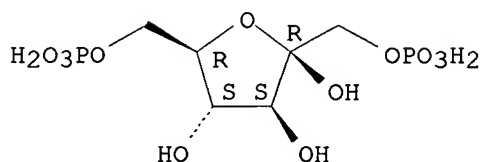
Absolute stereochemistry.



RN 94333-58-1 CAPLUS

CN  $\beta$ -D-Fructofuranose, 1,6-bis(dihydrogen phosphate), trisodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●3 Na

L6 ANSWER 39 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:382607 CAPLUS

DOCUMENT NUMBER: 125:41870

TITLE: Ophthalmic solutions containing antiallergic dimagnesium fructose 1,6-diphosphate

INVENTOR(S): Manabe, Mika; Katayama, Tatsuo; Yamamoto, Hideki

PATENT ASSIGNEE(S): Unitika Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08081377	A	19960326	JP 1994-217204	19940912 <--
PRIORITY APPLN. INFO.:			JP 1994-217204	19940912

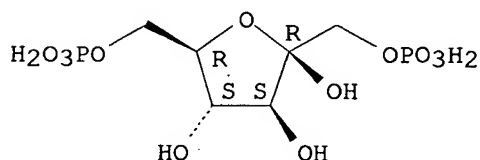
IT **175888-48-9P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(ophthalmic solns. containing antiallergic di-Mg fructose 1,6-diphosphate)

RN 175888-48-9 CAPLUS

CN  $\beta$ -D-Fructofuranose, 1,6-bis(dihydrogen phosphate), magnesium salt  
(1:2) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

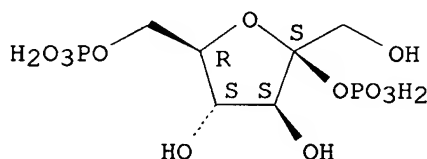


●2 Mg

L6 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN

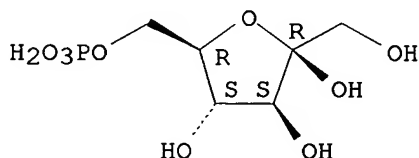
ACCESSION NUMBER: 1995:845285 CAPLUS  
 DOCUMENT NUMBER: 123:249927  
 TITLE: Anomeric specificity of rat hepatic  
 6-phosphofructo-2-kinase: an NMR study  
 AUTHOR(S): Lee, Yong-Hwan; Picardt, Francis; Pilkis, Simon J.  
 CORPORATE SOURCE: Dep. Physiol. Biophys., State Univ. New York Stony  
 Brook, Stony Brook, NY, 11794, USA  
 SOURCE: Archives of Biochemistry and Biophysics (1995  
 ), 322(2), 357-60  
 CODEN: ABBIA4; ISSN: 0003-9861  
 PUBLISHER: Academic  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 79082-92-1P,  $\beta$ -D-Fructose-2,6-diphosphate  
 RL: BPN (Biosynthetic preparation); BIOL (Biological study);  
 PREP (Preparation)  
 (anomeric specificity of rat hepatic 6-phosphofructo-2-kinase for  
 $\beta$ -D-fructose-6-phosphate)  
 RN 79082-92-1 CAPLUS  
 CN  $\beta$ -D-Fructofuranose, 2,6-bis(dihydrogen phosphate), (CA INDEX NAME)

Absolute stereochemistry.



IT 41452-29-3,  $\beta$ -D-Fructose-6-phosphate  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (anomeric specificity of rat hepatic 6-phosphofructo-2-kinase for  
 $\beta$ -D-fructose-6-phosphate)  
 RN 41452-29-3 CAPLUS  
 CN  $\beta$ -D-Fructofuranose, 6-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:261733 CAPLUS  
 DOCUMENT NUMBER: 122:29900  
 TITLE: Manufacture of 4-hydroxy-2(or 5)ethyl-5(or  
 2)-methyl-3(2H)furanone with yeast  
 INVENTOR(S): Sasaki, Masaoki  
 PATENT ASSIGNEE(S): Kikkoman Corp, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF

DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06277083	A	19941004	JP 1993-93848	19930330 <--

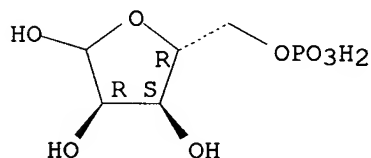
PRIORITY APPLN. INFO.: JP 1993-93848 19930330

IT **24325-23-3**, D-Ribose 5-phosphate barium salt  
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)  
(manufacture of flavoring hydroxyethylmethylfuranone from xylulose or ribose phosphate with yeast)

RN 24325-23-3 CAPLUS

CN D-Ribofuranose, 5-(dihydrogen phosphate), barium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●x Ba

=> file stng

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SINCE FILE

TOTAL

ENTRY

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FULL ESTIMATED COST

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326.63

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LAST RELOADED: Nov 16, 2007 (20071116/UP).

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FILE 'REGISTRY' ENTERED AT 14:12:07 ON 21 NOV 2007

L1 STRUCTURE UPLOADED

L2 27 S L1

L3 618 S L1 FULL

FILE 'CAPLUS' ENTERED AT 14:12:29 ON 21 NOV 2007

L4 2711 S L3

L5 . 58 S L4 AND BPN/RL  
L6 41 S L5 AND PY<=2003

FILE 'STNGUIDE' ENTERED AT 14:14:38 ON 21 NOV 2007

=> s 16 and phosphatase

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The query entered contains both search terms created by  
structure-building or screen commands and text search terms. L#s  
created via the STRUCTURE or SCREEN commands must be searched in the  
structures files separately from text terms or profiles. The L#  
answer sets from structure searches can be used in crossover searches  
and can be combined with text terms.

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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326.99

STN INTERNATIONAL LOGOFF AT 14:18:17 ON 21 NOV 2007

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(FILE 'HOME' ENTERED AT 10:53:23 ON 21 NOV 2007)

FILE 'CAPLUS, MEDLINE, BIOSIS' ENTERED AT 10:54:21 ON 21 NOV 2007

L1 3 "ACID PHOSPHATASE" AND PHOSPHORYLATION AND (?RIBOSE? OR ?ARABIN  
L2 190 "ACID PHOSPHATASE" AND (?RIBOSE? OR ?ARABINOSE?)  
L3 148 DUP REMOVE L2 (42 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 10:58:26 ON 21 NOV 2007

FILE 'CAPLUS' ENTERED AT 11:09:32 ON 21 NOV 2007

E HARTOG A/AU  
L4 68 S E3-E9  
E VAN HERK T/AU  
L5 8 S E3-E4  
E WEVER RON/AU  
L6 108 S E3-E4  
L7 168 DUP REMOVE L4-L6 (16 DUPLICATES REMOVED)  
L8 68 S L7  
L9 1 S L7  
L10 99 S L7  
L11 16 S L7 AND PHOSPHATASE

FILE 'STNGUIDE' ENTERED AT 11:12:00 ON 21 NOV 2007

FILE 'CAPLUS, BIOSIS, MEDLINE' ENTERED AT 11:16:29 ON 21 NOV 2007

L12 11595 "SHIGELLA FLEXNERI"  
L13 120 L12 AND PHOSPHATASE  
L14 75 DUP REMOVE L13 (45 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 11:22:40 ON 21 NOV 2007